Evaluating the feasibility and effectiveness of an Internet-based intervention for depression in a telephone counselling setting

Louise M. Farrer

The Centre for Mental Health Research

July 2011

A thesis submitted for the degree of Doctor of Philosophy (Clinical Psychology) at the Australian National University
Declaration

I declare that this thesis reports my own original work and is based on research conducted jointly with others (whose contributions are outlined below). No part has previously been presented for any degree. I certify that all sources consulted are acknowledged in this thesis.

Preliminary versions of the scoping survey conducted in this study were designed by Dr Liana Leach. Ms Nicole Hayes and I developed the final version of the survey, with the supervision of Professor Helen Christensen and Professor Kathy Griffiths.

The final design of the randomised controlled trial was developed with assistance from Professor Helen Christensen and Professor Kathy Griffiths. The design was based on an earlier version developed by Professors Christensen and Griffiths, and Professor Andrew Mackinnon. Ms Nicole Hayes was responsible for overseeing the data collection and day-to-day management of the trial, with my assistance as needed.

The funding for the trial and my PhD scholarship was provided by an Australian Research Council (ARC) Linkage grant.

..........................................................
Louise Farrer
Acknowledgements

“If we are facing in the right direction, all we have to do is keep on walking.”

- Buddhist Proverb

Firstly, thank you to my PhD supervisors Professor Helen Christensen, Professor Kathy Griffiths and Professor Andrew Mackinnon for helping me face in the right direction. Thank you for sharing your wisdom and for providing me with continual support. You are excellent teachers and mentors and the progress I’ve made as a researcher is a testament to you. Thank you to my advisor Associate Professor Richard O’Kearney for your clinical input and expertise.

To the hard-working staff and volunteers at Lifeline Australia, Lifeline Community Care Queensland, and Lifeline centres located in the Sunshine Coast, Capricorn Coast, Melbourne and Sydney. I am grateful for your willingness to embrace this research project. It would not have been possible without your involvement. To the Lifeline callers who participated in this research – thank you for taking part, I hope the experience was of value to you.

To my workmates at the Centre for Mental Health Research, thank you for your friendship and for making the workplace feel like a home. A special shout out to Dr Alison Clear, and soon-to-be doctors Amelia Gulliver and Jacqui Brewer: outstanding office mates throughout the years and dwellers in the ‘haven of awesome’ at one time or another. Thank you to Dr Philip Batterham (a.k.a P-Bat) for your expert statistical assistance and willingness to be harassed. Thank you to Melanie
Twidale and Natalie Hind for your kindness and careful attention to detail. Finally, a very special mention and thank you to Nicole Hayes for your skill and perseverance in managing this project.

Finally, much love and thanks to my irreplaceable friends and family; to those who are close and to those who live across the country and the world. You are by far the best things in my life. Thank you for being there for me and for cheering me along on my long walk. A very special thank you and lots of love to Mum, Dad, Jany and especially Kurt.
Abstract

Self-administered, Internet-based cognitive behaviour therapy (CBT) programs have been shown to be effective in reducing symptoms of depression. Evidence suggests that the effects of these programs may be enhanced by the provision of guidance from therapists and non-specialists (i.e. trained research staff and lay people). Telephone counselling helplines are frequently and repeatedly used by individuals with chronic mental health problems and Internet-based interventions may be an effective tool for reducing depression in this population. The delivery of web-based interventions within a telephone counselling setting also enables the combination of Internet treatments with monitoring provided by a telephone counsellor, which may improve treatment adherence and outcome, and prevent dropout.

A randomised controlled trial was used to assess the effectiveness of a 6 week, Internet-based CBT program (MoodGYM and BluePages) with and without weekly telephone tracking provided by a telephone counsellor. 155 callers to Lifeline (a national telephone counselling service) with moderate to high levels of psychological distress were recruited and randomised to receive either (a) Internet-based CBT plus weekly telephone tracking, (b) Internet-based CBT only, (c) weekly telephone tracking only, or (d) neither Internet-based CBT nor telephone tracking (control condition). Participants were assessed at pre-intervention, post-intervention, 6 month follow-up and 12 month follow-up. Depression and anxiety symptoms were the primary outcome measures. A range of secondary outcomes were examined, including dysfunctional thinking, quality of life, hazardous alcohol use, suicidal
ideation, knowledge of various treatments for depression, helpseeking, stigma, depression literacy and CBT literacy.

Depression symptoms were significantly reduced in participants who received the Internet only ($g = 0.76$) and Internet plus tracking ($g = 1.04$) interventions, compared with the control condition at post-intervention. Significant reductions in depression were also found at 6 month follow-up for participants in the Internet only ($g = 1.19$) and Internet plus tracking ($g = 1.26$) conditions relative to the control condition. The intervention was not found to be effective for anxiety symptoms, although between group contrasts favoured the intervention conditions over the control condition. Telephone tracking did not confer any advantage over delivery of the Internet intervention alone, in terms of both treatment adherence and outcome. Regarding secondary outcomes, participants who completed the Internet intervention either with or without telephone tracking had lower levels of hazardous alcohol use, improved quality of life, improved knowledge of psychological treatments for depression, improved knowledge of alternative treatments for depression, and improved knowledge of CBT compared to those allocated to the control condition at post-intervention. Higher educational level and higher pre-intervention motivation for treatment predicted greater adherence to the intervention. Higher baseline depression symptom severity was associated with greater reductions in depression symptoms at post-intervention, 6 month follow-up and 12 month follow-up.

There is clear potential for Internet-based treatments to be disseminated through telephone counselling settings. Additional research is needed to validate this model of Internet intervention delivery and to further examine the role of therapist and non-specialist guidance in Internet-based treatments. Depression is associated with
significant personal and economic burden, and the positive results of the trial suggest that the delivery of Internet-based treatments through telephone helplines may prove to be a valuable new model for the delivery of psychological services.
Publications arising from this thesis


# Table of contents

Declaration ........................................................................................................... ii

Acknowledgements ........................................................................................... iii

Abstract .............................................................................................................. v

Publications arising from this thesis .................................................................... viii

Table of contents ............................................................................................... ix

List of tables ........................................................................................................ xvii

List of figures ........................................................................................................ xxii

CHAPTER 1 – BACKGROUND ............................................................................. 1

1.1 Depression and anxiety in the community ......................................................... 2

1.1.1 Introduction ............................................................................................... 2

1.1.2 Mood disorders ......................................................................................... 2

1.1.3 Anxiety disorders ...................................................................................... 6

1.1.4 Co-morbidity ............................................................................................ 10

1.1.5 The disease burden of mood and anxiety disorders ................................. 10

1.1.6 Effective treatments for depression and anxiety ....................................... 13

1.1.7 Difficulties with access to treatment ....................................................... 20

1.1.8 Improving access to psychological treatment ........................................... 23

1.2 Internet-based interventions ........................................................................... 29

1.2.1 Introduction ............................................................................................... 29

1.2.2 Types of Internet-based interventions ...................................................... 29

1.2.3 Effectiveness of Internet-based interventions ........................................... 32

1.2.4 Advantages and disadvantages of Internet-based interventions .............. 55

1.3 Telephone-based interventions ...................................................................... 59

1.3.1 Introduction ............................................................................................... 59
1.3.2 Telephone-based psychotherapy ...................................................... 59
1.3.3 Non-directive telephone counselling .............................................. 60
1.3.4 Telephone counselling in Australia .................................................. 62
1.4 Summary of the literature to date ....................................................... 64

CHAPTER 2 – THE MENTAL HEALTH PROFILE OF LIFELINE CALLERS ..... 66

2.1 A scoping survey of Lifeline callers ..................................................... 66
2.1.1 Introduction ...................................................................................... 66
2.1.2 Background ..................................................................................... 66
2.1.3 Method ........................................................................................... 67
2.1.4 Results ............................................................................................ 71
2.1.5 Conclusions ................................................................................... 74

CHAPTER 3 – THE ECCO TRIAL: AIMS AND METHODS .......................... 76

3.1 Overview ............................................................................................ 76
3.2 Study aims and hypotheses ................................................................... 76
3.2.1 Aims ............................................................................................... 76
3.2.2 Hypotheses ..................................................................................... 77
3.3 Participants ......................................................................................... 78
3.3.1 Demographic characteristics ......................................................... 78
3.3.2 Mental health ................................................................................. 82
3.4 Procedure ........................................................................................... 83
3.4.1 Study design .................................................................................. 83
3.4.2 Ethics approval ............................................................................... 83
3.4.3 Staff and volunteer training ............................................................ 84
3.4.4 Participant recruitment .................................................................. 85
3.4.5 Screening ....................................................................................... 89
3.4.6 Consent, randomisation and intervention procedures .................... 91
3.5 Measures .................................................................................................................. 93
  3.5.1 Demographic measures ......................................................................................... 96
  3.5.2 Depression and anxiety history ............................................................................ 97
  3.5.3 Depression ........................................................................................................... 98
  3.5.4 Anxiety ................................................................................................................ 100
  3.5.5 Dysfunctional thinking ......................................................................................... 101
  3.5.6 Quality of life ....................................................................................................... 102
  3.5.7 Disablement ......................................................................................................... 103
  3.5.8 Hazardous alcohol use ......................................................................................... 104
  3.5.9 Suicidal ideation ................................................................................................. 105
  3.5.10 Beliefs about Internet treatments ....................................................................... 106
  3.5.11 Knowledge of medical, psychological and alternative treatments for depression ............................................................................................................ 107
  3.5.12 Help seeking (use of evidence-based treatments) .............................................. 108
  3.5.13 Stigma ............................................................................................................... 109
  3.5.14 Depression literacy .......................................................................................... 109
  3.5.15 Cognitive behaviour therapy literacy ............................................................... 110
  3.5.16 Lifeline use ....................................................................................................... 111
  3.5.17 Condition preference ....................................................................................... 111
  3.5.18 Intervention completion and satisfaction ......................................................... 112
  3.5.19 Intervention adherence ..................................................................................... 113
  3.5.20 Telephone counsellor feedback survey ............................................................. 113
  3.6 Intervention and trial conditions .......................................................................... 114
  3.6.1 Intervention ....................................................................................................... 114
  3.6.2 Internet only condition ...................................................................................... 116
  3.6.3 Internet plus tracking condition ....................................................................... 117
CHAPTER 5 – THE ECCO TRIAL: DISCUSSION

5.1 Effect of the intervention on primary outcomes

5.1.1 Depression

5.1.2 Anxiety

5.2 Effect of the intervention on secondary outcomes

5.2.1 Dysfunctional thinking

5.2.2 Quality of life

5.2.3 Hazardous alcohol use

5.2.4 Suicidal ideation

5.2.5 Disablement

5.2.6 Knowledge of helping professionals, medical treatments, psychological treatments and alternative treatments for depression

5.2.7 Help seeking

5.2.8 Stigma

5.2.9 Depression literacy and cognitive behaviour therapy literacy
CHAPTER 6 – PREDICTORS OF TREATMENT ADHERENCE AND OUTCOME

6.1 Overview ............................................................................................................. 249

6.2 Predictors of adherence and outcome ................................................................ 250

6.2.1 Demographic predictors of adherence .......................................................... 251

6.2.2 Demographic predictors of outcome ............................................................. 258

6.2.3 Clinical predictors of adherence ................................................................... 263

6.2.4 Clinical predictors of outcome ...................................................................... 264

6.2.5 Cognitive predictors of adherence ................................................................. 266

6.2.6 Cognitive predictors of outcome ................................................................... 268

6.2.7 Treatment adherence as a predictor of outcome ........................................... 269

6.2.8 Self-reported reasons for non-adherence ...................................................... 271

6.3 Aim and Hypotheses ......................................................................................... 273

6.4 Method ................................................................................................................. 274

6.4.1 Participants ..................................................................................................... 274

6.4.2 Procedure ....................................................................................................... 275

6.4.3 Measures ....................................................................................................... 276

6.4.4 Statistical analysis ......................................................................................... 280

6.5 Results ................................................................................................................ 281
6.5.1 Adherence to the intervention ........................................... 281
6.5.2 Motivation to participate in the intervention......................... 282
6.5.3 Correlations between predictor, adherence and outcome variables ........ 282
6.5.4 Predictors of adherence to the intervention ......................... 285
6.5.5 Predictors of outcome .................................................. 286
6.5.6 Reasons for non-adherence to the intervention .................... 289

6.6 Discussion ........................................................................... 291
   6.6.1 Predictors of adherence ................................................ 291
   6.6.2 Predictors of outcome .................................................. 295
   6.6.3 Reasons for non-adherence to the intervention .................... 298
   6.6.4 Limitations .................................................................. 299
   6.6.5 Implications and future directions ................................... 301
   6.6.6 Summary ..................................................................... 303

CHAPTER 7 – FUTURE DIRECTIONS AND CONCLUSIONS ................. 304

7.1 Future research directions .................................................... 304
7.2 Conclusion ......................................................................... 307

References .................................................................................. 309
List of tables

Table 1.1 Systematic reviews and meta-analyses of Internet-based interventions for depression and/or anxiety disorders in adults .............................................................. 34

Table 1.2 Summary of randomised controlled trials of Internet-based interventions for depression and anxiety .................................................................................. 39

Table 2.1 Overall distributions of current problems causing difficulties for respondents ...................................................................................................................... 72

Table 3.1 Demographic characteristics of the sample .................................................. 80

Table 3.2 Trial conditions ............................................................................................. 83

Table 3.3 Numbers of participants recruited from each counselling centre .................. 86

Table 3.4 Average numbers of calls received and callers invited to participate, by telephone counselling centre ..................................................................................... 87

Table 3.5 K10 cutoff scores used in 2000 Health and Wellbeing survey ....................... 90

Table 3.6 Measures contained in screening, pre-intervention, post-intervention and follow-up questionnaires ................................................................................................. 94

Table 3.7 Intervention period tasks by trial condition .................................................. 119

Table 4.1 Predictors of missingness at post-intervention ............................................. 129

Table 4.2 Predictors of missingness at 6 month follow-up ......................................... 130

Table 4.3 Predictors of missingness at 12 month follow-up ....................................... 131

Table 4.4 Means and (standard deviations) for primary and secondary outcome measures at pre-intervention, post-intervention, 6 month follow-up and 12 month follow-up ................................................................................................................................. 133

Table 4.5 Summary of results of condition by measurement occasion interactions for continuous outcomes .................................................................................................................. 137
Table 4.6 Within group contrast estimates and significance tests for depression symptoms ..............................................................................................................139

Table 4.7 Between group contrast estimates and significance tests for depression symptoms ..............................................................................................................140

Table 4.8 Numbers of participants in each condition meeting clinical caseness for depression..............................................................................................................142

Table 4.9 Means and (standard deviations) for depression symptoms for the subsample who completed 3 or more MoodGYM modules ..............................................................................................................144

Table 4.10 Within group contrast estimates and significance tests for depression symptoms for the subsample of participants who completed 3 or more MoodGYM modules ..............................................................................................................146

Table 4.11 Between group contrast estimates and significance tests for depression symptoms for the subsample of participants who completed 3 or more MoodGYM modules ..............................................................................................................147

Table 4.12 Within group contrast estimates and significance tests for anxiety symptoms ..............................................................................................................151

Table 4.13 Between group contrast estimates and significance tests for anxiety symptoms ..............................................................................................................152

Table 4.14 Within group contrast estimates and significance tests for dysfunctional thinking. ..............................................................................................................156

Table 4.15 Between group contrast estimates and significance tests for dysfunctional thinking. ..............................................................................................................158

Table 4.16 Within group contrast estimates and significance tests for quality of life ..............................................................................................................161

Table 4.17 Between group contrast estimates and significance tests for quality of life ..............................................................................................................162
Table 4.18 Within group contrast estimates and significance tests for hazardous alcohol use ................................................................. 165

Table 4.19 Between group contrast estimates and significance tests for hazardous alcohol use ................................................................. 166

Table 4.20 Within group contrast estimates and significance tests for suicidal ideation ................................................................. 169

Table 4.21 Between group contrast estimates and significance tests for suicidal ideation ................................................................. 170

Table 4.22 Within group contrast estimates and significance tests for beliefs about Internet treatments ................................................................. 173

Table 4.23 Between group contrast estimates and significance tests for beliefs about Internet treatments ................................................................. 174

Table 4.24 Within group contrast estimates and significance tests for knowledge of helping professionals ................................................................. 177

Table 4.25 Between group contrast estimates and significance tests for knowledge of helping professionals ................................................................. 178

Table 4.26 Within group contrast estimates and significance tests for knowledge of medical treatments ................................................................. 181

Table 4.27 Between group contrast estimates and significance tests for knowledge of medical treatments ................................................................. 182

Table 4.28 Within group contrast estimates and significance tests for knowledge of psychological treatments ................................................................. 185

Table 4.29 Between group contrast estimates and significance tests for knowledge of psychological treatments ................................................................. 186

Table 4.30 Within group contrast estimates and significance tests for knowledge of alternative treatments ................................................................. 189
Table 4.31 Between group contrast estimates and significance tests for knowledge of alternative treatments ........................................................................................................ 190

Table 4.32 Within group contrast estimates and significance tests for help seeking 193

Table 4.33 Between group contrast estimates and significance tests for help seeking ........................................................................................................ 194

Table 4.34 Within group contrast estimates and significance tests for stigma............. 197

Table 4.35 Between group contrast estimates and significance tests for stigma........... 198

Table 4.36 Within group contrast estimates and significance tests for depression literacy ........................................................................................................ 201

Table 4.37 Between group contrast estimates and significance tests for depression literacy ........................................................................................................ 202

Table 4.38 Within group contrast estimates and significance tests for cognitive behaviour therapy literacy ........................................................................... 205

Table 4.39 Between group contrast estimates and significance tests for cognitive behaviour therapy literacy ........................................................................... 206

Table 4.40 Number of participants in each condition indicating that they accomplished less than they would like due to emotional problems ................ 208

Table 4.41 Treatment condition as a predictor of reduced productivity due to emotional problems at post-intervention ................................................. 209

Table 4.42 Treatment condition as a predictor of reduced productivity due to emotional problems at 6 month follow-up ............................................. 210

Table 4.43 Treatment condition as a predictor of reduced productivity due to emotional problems at 12 month follow-up ............................................. 210

Table 4.44 Number of participants in each condition indicating that they did not complete work or other activities as carefully as usual due to emotional problems . 211
Table 4.45 Treatment condition as a predictor of decreased carefulness due to emotional problems at post-intervention ......................................................... 212

Table 4.46 Treatment condition as a predictor of decreased carefulness due to emotional problems at 6 month follow-up ............................................... 213

Table 4.47 Treatment condition as a predictor of decreased carefulness due to emotional problems at 12 month follow-up ............................................. 213

Table 4.48 Number of MoodGYM modules completed by participants in the Internet only and Internet plus tracking conditions ................................................ 215

Table 4.49 Number of times participants in each condition called Lifeline at each measurement occasion ................................................................. 217

Table 4.50 Main reasons given by telephone counsellors for not inviting callers to participate in the trial ................................................................. 220

Table 6.1 Demographic characteristics of the subsample ......................................................... 275

Table 6.2 Number of weeks of the intervention completed by participants in the Internet only and Internet plus tracking conditions ................................................ 282

Table 6.3 Correlation matrix for predictor, adherence and outcome variables .......... 284

Table 6.4 Multiple linear regression analysis predicting adherence for participants in the Internet only and Internet plus tracking conditions ................................................ 286

Table 6.5 Multiple linear regression analysis predicting better outcome at post-intervention for participants in the Internet only and Internet plus tracking conditions ................................................ 287

Table 6.6 Multiple linear regression analysis predicting better outcome at 6 month follow-up for participants in the Internet only and Internet plus tracking conditions 288

Table 6.7 Multiple linear regression analysis predicting better outcome at 12 month follow-up for participants in the Internet only and Internet plus tracking conditions 289
List of figures

**Figure 4.1** Flow of participants through the trial.................................................................127

**Figure 4.2** Estimated marginal means and standard errors (±1 SE) for depression symptoms .........................................................................................................................138

**Figure 4.3** Estimated marginal means and standard errors (±1 SE) for depression symptoms for the subsample of participants who completed 3 or more MoodGYM modules .........................................................................................................................145

**Figure 4.4** Estimated marginal means and standard errors (±1 SE) for anxiety symptoms .................................................................................................................................150

**Figure 4.5** Estimated marginal means and standard errors (±1 SE) for dysfunctional thinking .................................................................................................................................155

**Figure 4.6** Estimated marginal means and standard errors (±1 SE) for quality of life .................................................................................................................................160

**Figure 4.7** Estimated marginal means and standard errors (±1 SE) for hazardous alcohol use .................................................................................................................................164

**Figure 4.8** Estimated marginal means and standard errors (±1 SE) for suicidal ideation .................................................................................................................................168

**Figure 4.9** Estimated marginal means and standard errors (±1 SE) for beliefs about Internet treatments .........................................................................................................................172

**Figure 4.10** Estimated marginal means and standard errors (±1 SE) for knowledge of helping professionals .........................................................................................................................176

**Figure 4.11** Estimated marginal means and standard errors (±1 SE) for knowledge of medical treatments.........................................................................................................................180
Figure 4.12 Estimated marginal means and standard errors (±1 SE) for knowledge of psychological treatments................................................................. 184

Figure 4.13 Estimated marginal means and standard errors (±1 SE) for knowledge of alternative treatments.............................................................. 188

Figure 4.14 Estimated marginal means and standard errors (±1 SE) for help seeking ............................................................................................... 192

Figure 4.15 Estimated marginal means and standard errors (±1 SE) for stigma ...... 196

Figure 4.16 Estimated marginal means and standard errors (±1 SE) for depression literacy.................................................................................. 200

Figure 4.17 Estimated marginal means and standard errors (±1 SE) for cognitive behaviour therapy literacy.............................................................. 204
In the year 2023, a comprehensive health care system was introduced in several countries. This system aimed to provide accessible, quality, and equitable health care services to all citizens. The implementation of this system was marked by several challenges and successes. The following pages provide an overview of the experiences and lessons learned from the introduction of this health care system.

Figure 4.6: Estimated marginal means and standard errors (± SE) for the quality of life.

Figure 4.7: Calculated marginal means and standard errors (± SE) for locational

Figure 4.8: Log-normal marginal means and standard errors (± SE) for suicidal

Figure 4.9: Estimated marginal means and standard errors (± SE) for health status

Figure 4.10: Estimated marginal means and standard errors (± SE) for helping professionals

Figure 4.11: Estimated marginal means and standard errors (± SE) for knowledge of medical treatment
CHAPTER 1 – BACKGROUND

This thesis describes the design, implementation and analysis of a randomised controlled trial of an Internet-based cognitive behavioural therapy intervention for depression and anxiety in a sample of users of telephone counselling services. The primary component of this study was a randomised controlled trial that aimed to examine the effects of the intervention on a range of primary and secondary outcomes. Prior to the implementation of the trial, a scoping survey of telephone counselling users was conducted to explore the feasibility of and need for an Internet-based intervention for depression in this sample. To supplement the analysis of the primary and secondary outcomes, an exploration of the predictors of treatment adherence and outcome in those assigned to receive the intervention was also conducted.

Chapter 1 provides background to the scoping survey and the randomised controlled trial. Section 1.1 provides the context for mood and anxiety disorder interventions by describing the symptoms, prevalence, course, duration and comorbidity of these disorders. Following this, the evidence for effective treatments for mood and anxiety disorders is reviewed. Section 1.1 concludes with a discussion of common barriers to seeking and receiving psychological treatments, and the development of self-help approaches as a strategy for addressing the problem of unmet need for treatment.

Section 1.2 introduces the use of the Internet in self-help treatments for mood and anxiety disorders. A systematic review of the evidence for Internet-based self-help applications is provided. The advantages and disadvantages of Internet-based interventions are also discussed.
Chapter 1 concludes with Section 1.3 which discusses the use of the telephone in the treatment of mood and anxiety disorders, including telephone-based psychotherapy and non-directive telephone counselling.

1.1 Depression and anxiety in the community

1.1.1 Introduction

Mood and anxiety disorders are common in the community and have a significant individual and societal cost. Major Depressive Disorder (MDD) and anxiety disorders are well defined, highly prevalent, and if left untreated, may have a chronic course. Accordingly, these disorders have a considerable negative effect on personal, social and economic functioning. Although effective treatments for depression and anxiety disorders exist, there are numerous barriers to seeking and receiving these treatments, leading to high levels of unmet need. Self-help treatments have been developed to help address unmet need and there is evidence to suggest that they are effective.

1.1.2 Mood disorders

Symptoms

The Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition (DSM-IV) (American Psychiatric Association, 2000) describes MDD as a disorder of mood characterised by one or more major depressive episodes. MDD is commonly referred to as ‘depression’, ‘major depression’ or ‘clinical depression’. A major depressive episode is described as a period of two weeks in which an individual experiences depressed or low mood, or loss of interest or pleasure in nearly all activities. Individuals who experience depression commonly describe feelings of
sadness, moodiness, hopelessness and discouragement. Others describe feelings of apathy or the absence of emotion. Depressed mood can manifest in frequent episodes of crying, bodily aches and pains and lack of energy. It is also common for individuals to feel irritable, angry and frustrated when depressed. In addition to low mood, individuals experience some degree of loss of interest in previously enjoyed activities. This may result in withdrawal from usual activities or social interactions.

Although low mood and loss of interest are the key features of a major depressive episode, an individual may also experience any or all of the following associated symptoms: changes in appetite, weight, sleep or psychomotor activity, decreased energy, feelings of worthlessness or guilt, difficulty concentrating and making decisions, or recurrent suicidal ideation, plans or attempts. Appetite can be either reduced or increased in an individual experiencing a major depressive episode, resulting, in significant cases, in considerable weight loss or gain. Most commonly, sleep disturbance is experienced as insomnia, with symptoms including waking in the middle of the night, difficulty falling asleep, waking too early and being unable to return to sleep. Hypersomnia may also occur in the form of daytime sleeping or prolonged night time sleep. In a major depressive episode, an individual may experience psychomotor agitation (e.g. pacing, feeling fidgety) or retardation (e.g. slowed speech, thinking or movement). Feelings of fatigue and decreased energy are also common, and individuals often report that completing small or simple tasks is exhausting and requires substantial effort. In terms of cognitive symptoms, individuals commonly report an increased sense of worthlessness or guilt, which often includes rumination on past failures, an inflated sense of self-blame for external events or unrealistic negative evaluations of self-worth. They may also report having difficulty thinking, remembering, concentrating or making decisions; all of which can significantly impact academic or occupational activities. Individuals experiencing a
major depressive episode often contemplate or attempt suicide, due to a desire to end overwhelming emotional pain or a perception that they are a burden to others. The frequency, intensity and lethality of suicidal ideation is variable and can range from transient suicidal thoughts to a concrete suicide plan.

In a major depressive episode, the experience of the above symptoms is either newly present in the individual or significantly worse relative to the individual’s pre-episode level of functioning. The symptoms are present more often than not, for most of the day, nearly every day, and result in clinically significant distress or impairment in social, occupational and other areas of functioning. In order to meet the clinical criteria for MDD, an individual must experience two or more major depressive episodes, with at least 2 consecutive months without symptoms between each episode. Major Depressive Disorder, Single Episode is diagnosed when only one major depressive episode is experienced.

Prevalence

Lifetime risk estimates of mood disorder vary, ranging from approximately 8% to 17% in community samples (Bijl, Ravelli, & van Zessen, 1998; Kessler, Berglund, Demler, Jin, Koretz, Merikangas, Rush, Walters, & Wang, 2003b; Kessler, McGonagle, Zhao, Nelson, Hughes, Eshleman, Wittchen, & Kendler, 1994; Kessler, Zhao, Blazer, & Swartz, 1997). Lifetime risk of depression is generally higher in women than in men, ranging between 10% and 25% for women, and 5% to 12% for men (Bijl et al., 1998; Kessler et al., 1994). Estimates are highest in adults aged between 30 and 44 years (19.8%) (Kessler, Berglund, Demler, Jin, Merikangas, & Walters, 2005a). The estimated 12 month prevalence of major depression in the United States ranges from approximately 6% to 10%, with the prevalence rate slightly higher for women at 12.9% compared to 7.7% in men (Kessler et al., 2003b; Kessler
et al., 1994). One month prevalence estimates for major depression are approximately 4 to 5%, and are slightly higher for women (5.9%) than for men (4.2%) (Blazer, Kessler, McGonagle, & Swartz, 1994; Ohayon, 2007; Ohayon, Priest, Guilleminault, & Caulet, 1999).

Similar prevalence rates have been found in the Australian adult population. In the National Survey of Mental Health and Wellbeing (NSMHWB), 6.2% of adults aged 16 to 85 years were found to have experienced a mood disorder in the previous 12 months (Australian Bureau of Statistics, 2007). 4.1% (656,600) of the population were found to have experienced a depressive episode specifically. These figures are slightly higher than reported in the 2001 National Health Survey which found that 4.5% of the Australian population experienced a mood disorder (Australian Bureau of Statistics, 2001a). As in other populations, the 12 month prevalence of mood disorders in Australia is higher for women than men (5.5% to 7.1% and 3.4% to 5.3%, respectively) (Australian Bureau of Statistics, 2001a, 2007). The 1 month prevalence rate of depression in Australia is 3.2%, with estimates of 3.9% for females and 2.4% for males (Wilhelm, Mitchell, Slade, Brownhill, & Andrews, 2003). In Australia, the point prevalence of a major depressive episode is more common in adults aged 45 to 54 years than at any other age (Wilhelm et al., 2003).

In terms of psychological distress, as measured by the Kessler Psychological Distress Scale (K10) (Kessler, Andrews, Colpe, Hiripi, Mroczek, Normand, Walters, & Zaslavsky, 2002), most Australian adults report low levels of distress (64% to 67%). However, 21% to 23% experience moderate levels, 9% report high levels and 4% report very high levels of distress (Australian Bureau of Statistics, 2001a, 2007). Similar estimates have been found in rural populations in Australia. 69% of Australian adults in rural areas report low levels of psychological distress, 21% experience moderate levels and 10% report high or very high levels of psychological
distress. Eight percent of these adults also report symptoms of depression (Kilkkinen, Kao-Philpot, O’Neil, Philpot, Reddy, Bunker, & Dunbar, 2007).

**Course and duration**

The average age of onset for MDD is during the mid-20s; however, depression can occur at any age (American Psychiatric Association, 2000). Retrospective and cross-sectional data from adult and adolescent samples suggests that the average age of onset of major depression may be decreasing over time (Lewinsohn, Rohde, Seeley, & Fischer, 1993). A major depressive episode may develop over days or weeks, beginning with anxiety or mild depressive symptoms. The episode typically lasts for between 5 and 9 months from first onset of symptoms to remission (Solomon, Keller, Leon, Mueller, Shea, Warshaw, Maser, Coryell, & Endicott, 1997). However, episode duration varies considerably between individuals, as well as from one recurrent episode to the next. Although some individuals may experience only one major depressive episode, depression is more commonly experienced as a chronic, recurrent disorder (Solomon et al., 1997). At least 60% of those who have experienced a single depressive episode will experience a second episode (Angst, 1992), and the risk of experiencing further episodes increases with the number of previously experienced episodes. A majority of individuals recover from their first episode of depression within one year of diagnosis (Keller, Shapiro, Lavori, & Wolfe, 1982). However, many of those who do not recover within the first year fail to do so within 5 years (Mueller, Keller, Leon, Solomon, Shea, Coryell, & Endicott, 1996).

### 1.1.3 Anxiety disorders

**Symptoms**
The term ‘anxiety’ is used to define a set of symptoms that occur in response to fear or threat to safety. In healthy individuals, the symptoms of anxiety perform an important protective role in that they alert the individual to danger and stimulate a number of bodily sensations that prepare the individual to respond. However, anxiety can become dysfunctional when an individual experiences overwhelming *irrational* fear or worry in response to a stimulus, due to an unrealistic appraisal of the inherent danger of that stimulus. By nature, this fear is difficult to control and individuals doubt their ability to cope when faced with the fear-inducing stimulus. In response, individuals commonly go to extreme lengths to avoid objects or situations that they perceive as dangerous, further reinforcing their anxious response.

Extreme anxiety is commonly experienced in the form of panic or a panic attack, which is defined by the DSM-IV (American Psychiatric Association, 2000) as a period of intense fear or discomfort that involves heart palpitations, sweating, trembling, shortness of breath, choking sensations, chest pain, dizziness, nausea, and fear of losing control, ‘going crazy’ or dying. Panic attacks occur suddenly and intensify rapidly, causing individuals to experience a heightened sense of imminent danger, and a desire to flee the triggering cue or situation. Uncued panic attacks occur spontaneously, in the absence of an internal or external trigger. Cued, or situationally bound panic attacks are those that occur in anticipation of or following exposure to a situational cue or trigger. Similarly, situationally predisposed panic attacks are cued, but do not invariably occur in response to a situational trigger.

The DSM-IV describes a number of specific anxiety disorders: agoraphobia, panic disorder, specific phobia, social phobia, obsessive compulsive disorder, posttraumatic stress disorder, and generalised anxiety disorder. Agoraphobia is the experience of extreme anxiety or panic in situations where an individual feels it would be difficult to escape or receive help if they were to experience a panic attack. Panic
disorder is defined as the presence of recurrent panic attacks, with persistent concern about the experience and consequences of future panic attacks. Individuals with specific phobia experience excessive and persistent fear of specific objects or situations. Subtypes of specific phobia include: animal type (e.g. dogs, spiders), natural environment type (e.g. storms, heights), blood/injection/injury type (e.g. injections, medical procedures), situational type (e.g. elevators, flying), and other type (e.g. fear of choking). In social phobia, individuals experience extreme fear in social or performance situations due to concern about being embarrassed or perceived as weak, stupid or 'crazy'. Obsessive compulsive disorder (OCD) is defined as the presence of recurrent obsessions (intrusive and persistent ideas or images that cause marked distress) and compulsions (repetitive physical or mental behaviours that prevent or reduce distress). Individuals with posttraumatic stress disorder (PTSD) experience persistent increased arousal following exposure to a traumatic stressor involving actual or threatened serious harm or death. Individuals with PTSD continue to mentally re-experience the traumatic event and consistently avoid stimuli associated with the trauma. Generalised anxiety disorder (GAD) is defined as excessive diffuse worry that is difficult to control and is associated with a number of events or activities. A common feature of all DSM-IV anxiety disorders is the tendency to either avoid anxiety provoking situations or stimuli, or endure these stimuli with marked distress.

Prevalence

Lifetime prevalence estimates for anxiety disorders are higher than those for mood disorders. Lifetime risk of developing any anxiety disorder is approximately 25%, with higher estimates for women (30.5%) than for men (19.2%) (Kessler et al., 1994). Twelve month prevalence rates of any anxiety disorder vary between 11% and
18%, with specific phobia (8.7%), social phobia (6.8%), PTSD (3.5%) and GAD (3.1%) among the most common disorders (Kessler, Chiu, Demler, Merikangas, & Walters, 2005b; Kessler et al., 1994; Regier, Rae, Narrow, Kaelber, & Schatzberg, 1998). Panic disorder (2.7%), agoraphobia (0.8%), and OCD (1%) have relatively lower 12 month prevalence rates (Kessler et al., 2005b). Women (22.6%) are twice as likely as men (11.8%) to experience any 12 month anxiety disorder, and higher prevalence estimates for each anxiety disorder have been found in women (Kessler et al., 1994).

In the National Survey of Mental Health and Wellbeing, 14.4% of the Australian population were found to have experienced an anxiety disorder in the previous 12 months (Australian Bureau of Statistics, 2007). The most commonly experienced anxiety disorder was PTSD (6.4%), followed by social phobia (4.7%), agoraphobia (2.8%), GAD (2.7%), panic disorder (2.6%), and OCD (1.9%). The 12 month prevalence rate for anxiety disorders was higher in women than in men (22% and 18%, respectively), and was most prevalent in adults aged 35 to 44 years (18%) (Australian Bureau of Statistics, 2007).

Course and duration

Course and duration varies considerably between anxiety disorders. In general, anxiety disorders begin in young adulthood between the ages of 20 and 30 years, and are commonly triggered by life events (Angst & Vollrath, 1991). The first symptoms of specific phobia, social phobia and OCD tend to occur in childhood or adolescence, whereas other anxiety disorders (panic disorder, agoraphobia, GAD) are more likely to develop in early adulthood (American Psychiatric Association, 2000; Regier et al., 1998). Although the onset and development of anxiety disorders can be sudden, GAD is associated with a more gradual onset (Brown, 1997). Most anxiety disorders have a
chronic course. However, those with panic disorder show swifter rates of recovery than those with GAD, agoraphobia and social phobia (Bruce, Yonkers, Otto, Eisen, Weisberg, Pagano, Shea, & Keller, 2005).

1.1.4 Co-morbidity

Mental health problems commonly co-occur with other mental or physical health problems. 8.5% of the Australian population surveyed in 2007 were found to have experienced two or more mental disorders during a 12 month period (Australian Bureau of Statistics, 2007). Depression and anxiety are commonly co-morbid. Kessler and colleagues found that 59% of those with lifetime depression and 58% of those with 12 month depression also met diagnostic criteria for an anxiety disorder (Kessler et al., 2003b). Co-morbidity increases the risk of poorer treatment outcomes, relative to those associated with the treatment of each illness alone (Bakish, 1999). When symptoms of anxiety and depression co-occur, individuals can experience slower rates of recovery and greater symptom severity (Clayton, Grove, Coryell, Keller, Hirschfeld, & Fawcett, 1991).

1.1.5 The disease burden of mood and anxiety disorders

The term ‘disease burden’ has been used to describe the negative impact of an illness (McGuire, Wells, Bruce, Miranda, Scheffler, Durham, Ford, & Lewis, 2002). This term is broad-reaching and encompasses the costs and impact of an illness. The burden of depression and anxiety includes the impact of the illness on an individual’s wellbeing and quality of life. Disease burden also includes the effect of the illness on the family, friends and associates of an individual who experiences a depressive or anxiety disorder. Finally, disease burden can encompass the cost of the illness to
society at large, in terms of collective health care costs, reduced workforce participation and general concern for the mutual welfare of the community.

It is difficult to ascertain an ideal measure of burden that encompasses all of these factors. One of the most widely used approaches to quantifying disease burden is to estimate the cost of an illness, in terms of either the direct cost of treatment or the indirect cost of loss of productivity. For example, the direct monetary cost of major depression in Australia is typically estimated in terms of excess annual cost borne by the healthcare sector and the individual with depression (Goldney, Fisher, Grande, Taylor, & Hawthorne, 2007). The estimated annual cost borne by the healthcare sector was $3919AUD, and the estimated cost per person was $13675AUD per annum. The estimated total excess cost of major depression, per year, in Australia (including the cost of healthcare providers, pharmaceuticals, hospital care, days of reduced work and days unable to work) is $466,013,490AUD in excess costs to the health sector, and $1,626,273,170AUD in excess costs to the individual (Goldney et al., 2007).

The health-related life impacts of illness have been estimated using Disability-Adjusted Life Years (DALYs) and Years Lived with a Disability (YLD) (Murray & Lopez, 1996). DALYs are defined as the number of years lost due to illness, disability or early death and YLD is a component of the DALY that measures the years of healthy life lost due to suboptimal health (Murray & Lopez, 1996). Unipolar depressive disorders are among the top four leading causes of DALYs for both men and women, globally. Depressive disorders account for 4.5% of total DALYs and for 12.1% of total YLD (Ustun, Ayuso-Mateos, Chatterji, Mathers, & Murray, 2004). In countries in the Western Pacific Region (among which Australia is included), depression ranks equal first with cerebrovascular disease as the leading cause of disability, accounting for 6% of total DALYs (Ustun et al., 2004). Unipolar depression is also projected to be the second highest contributor to burden of disease
in 2020 (Murray & Lopez, 1997). Depression is also associated with an increased risk of mortality (Cuijpers & Smit, 2002), which may be due to an increased risk of suicide, hazardous health behaviours or higher risk of accidental death resulting from hazardous health behaviours.

Mood and anxiety disorders can have an enduring negative impact on an individual’s social and occupational functioning, and their physical health. Untreated depression has been associated with unemployment (Whooley, Kiefe, Chesney, Markovitz, Matthews, & Hulley, 2002), decline in job status and income (Coryell, Scheftner, Keller, Endicott, Maser, & Klerman, 1993), absenteeism and decreased work performance (Plaisier, Beekman, de Graaf, Smit, van Dyck, & Penninx, 2010). Mental disorders can have a significant effect on an individual’s ability to carry out daily activities. 50% of the Australian population with mental disorders reported having accomplished less than they desired in the past four weeks, compared to 11% of those without mental disorders (Australian Bureau of Statistics, 2001a). 41% of adults with mental health problems reported having performed work or other activities less carefully than usual, compared to 8% of those without mental health problems (Australian Bureau of Statistics, 2001a). Depression and anxiety disorders have also been associated with disruption in social and marital functioning. Depression and anxiety symptomatology has been linked to problems with interacting in social and work relationships (Hecht, von Zerssen, Krieg, Possl, & Wittchen, 1989). Those with mood or anxiety disorders also report greater marital dissatisfaction (Whisman, 1999). In addition, there is evidence that those with depression face a greater risk of physical illnesses, including cardiovascular disease, stroke and adult onset diabetes (Eaton, Armenian, Gallo, Pratt, & Ford, 1996; Penninx, Beekman, Honig, Deeg, Schoevers, van Eijk, & van Tilburg, 2001).
Mood and anxiety disorders are prevalent, chronic and have a significant impact on an individual’s ability to engage with the world. These disorders negatively impact on an individual’s wellbeing and quality of life, the ability to foster and maintain intimate, familial and social relationships, and the capacity to perform in occupational roles. In extreme cases, the symptoms of depression and anxiety can compromise an individual’s ability for self care and threaten their safety through suicidal ideation and actions. Effective, early interventions for mood and anxiety disorders are important for remission of symptoms and the prevention of future episodes of illness.

1.1.6 Effective treatments for depression and anxiety

Decades of research and clinical practice have established the evidence-base for the treatment of mood and anxiety disorders. Treatments for these disorders can be broadly classed as medical/psychopharmacological (drug and other medical treatments), psychotherapeutic (talking therapies), and complementary (non-traditional approaches or lifestyle behaviours).

The most effective medical approaches in the treatment of depression are antidepressant drug treatments and electroconvulsive therapy (ECT). Antidepressants target the neurotransmitter pathways in the brain believed to be implicated in depression. These drugs include monoamine oxidase inhibitors (MAOIs), tricyclic antidepressants (TCAs), tetracyclic antidepressants (TeCAs), selective serotonin reuptake inhibitors (SSRIs), and serotonin-norepinephrine reuptake inhibitors (SNRIs). Systematic reviews indicate that antidepressant medications (particularly TCAs and SSRIs) are effective in the reduction of depressive symptoms (Anderson, 2000; Arroll, Macgillivray, Ogston, Reid, Sullivan, Williams, & Crombie, 2005; Omori, Watanabe,
Nakagawa, Cipriani, Barbui, McGuire, Churchill, & Furukawa, 2010). Average effect sizes for TCAs and SSRIs relative to a placebo have been estimated at 0.5 (Joffe, Sokolov, & Streiner, 1996; Trindade & Menon, 1997). However, a number of issues have been raised with regard to the efficacy and tolerability of antidepressants. The therapeutic effect of antidepressants diminishes following discontinuation of the medication, often resulting in relapse of symptoms (Geddes, Carney, Davies, Furukawa, Kupfer, Frank, & Goodwin, 2003). The combination of antidepressants and psychotherapy during treatment may prevent symptom relapse and recurrence (Petersen, 2006), and this approach is recommended in clinical practice guidelines for the treatment of depression (National Institute for Clinical Excellence, 2007). An additional issue in the use of antidepressants is adverse side effects, reducing the tolerability of the treatment and increasing the risk of discontinuation (Furukawa, McGuire, & Barbui, 2002; Masand & Gupta, 2002). It has also been claimed that the efficacy of antidepressants is no greater than that of active placebos. In a review of nine trials comparing tricyclic antidepressants with active placebos for depression, a pooled effect size of 0.17 was obtained, supporting no advantage for the treatment over the active placebo (Moncrieff, Wessely, & Hardy, 2004).

Common medications used in the treatment of anxiety disorders include antidepressants and benzodiazepines (Ravindran & Stein, 2010). Benzodiazepines increase levels of inhibitory neurotransmitters in the brain, resulting in a strong sedative effect. Despite evidence for the efficacy of benzodiazepines in the treatment of panic disorder (Mitte, 2005) and GAD (Hidalgo, Tupler, & Davidson, 2007), there are concerns about the long-term use of benzodiazepines due to their tolerability and risk of abuse, dependence and withdrawal (Edwards, Cantopher, & Olivieri, 1992). Accordingly, they are rarely used as first-line treatments for anxiety disorders, and instead, are mainly prescribed to augment SSRIs and other antidepressants (Nutt,
SSRIs and other classes of antidepressants have been shown to be effective in the treatment of GAD (Schmitt, Gazalle, Lima, Cunha, Souza, & Kapczinski, 2005), panic disorder (Bakker, van Balkom, & Spinhoven, 2002), PTSD (Pearlstein, 2000) and OCD (Piccinelli, Pini, Bellantuono, & Wilkinson, 1995).

ECT involves the application of an electrical current to the brain to induce a seizure, while the individual is under a general anaesthetic. It has been shown to be more effective in the treatment of severe depression than simulated or ‘sham’ ECT and antidepressant medications (The UK ECT Review Group, 2003). However, ECT has also been associated with side effects including memory loss and cognitive difficulties, and consequently, it is generally reserved for individuals at persistent risk of self harm or in cases of chronic severe depression.

Complementary and alternative approaches are defined as those that ‘complement mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy, or by diversifying the conceptual framework of medicine’ (Ernst, Resch, Mills, Hill, Mitchell, Willoughby, & White, 1995). Complementary therapies are popular and preferred treatments (Astin, 1998; Jorm, Medway, Christensen, Korten, Jacomb, & Rodgers, 2000), often because consumers wish to avoid adverse side effects and desire a greater sense of empowerment and control over their treatment (Ernst, Willoughby, & Weimayr, 1995; Vincent & Furnham, 1996). Complementary treatments for depression with some evidence of efficacy include physical activity (Mead, Morley, Campbell, Greig, McMurd, & Lawlor, 2008), St John’s Wort (Linde, Berner, & Kriston, 2008), and light therapy (Tuunainen, Kripke, & Endo, 2004). Complementary treatments for anxiety which may be effective include kava extract (Pittler & Ernst, 2003), autogenic training (Stetter & Kupper, 2002), bibliotherapy (Newman, Erickson, Przeworski, & Dzus, 2003), and physical activity (Petruzzello, Landers, Hatfield, Kubitz, & Salazar, 1991).
However, relative to other forms of treatment, the evidence for complementary therapies is scant, warranting further randomised controlled trials to fully establish the evidence base for these treatments.

Like pharmacological treatments, psychotherapeutic approaches have received significant research attention and there are a number of major psychotherapies that have a strong evidence base for the treatment of mood and anxiety disorders. One of the most dominant and widely researched psychotherapeutic treatments for depression is cognitive behaviour therapy (CBT). CBT is a type of psychological therapy that involves a range of techniques aimed at altering unhelpful cognitions and behaviours, thereby altering negative emotion. CBT is strongly influenced by the cognitive conceptualisation of depression developed by Beck and colleagues (Beck, Rush, Shaw, & Emery, 1979). According to the cognitive model of depression, cognitions (thoughts) and thinking styles play a central role in the genesis and maintenance of dysfunctional emotion. Individuals develop ‘schemas’ (stable thinking patterns) in early life, which predispose them to interpret situations or events in characteristic ways. In depression, individuals are prone to interpret events in a negative and unrealistic manner, commonly through errors in thinking (‘over-generalisation’, ‘magnification/ minimisation’, ‘personalisation’, ‘black-and-white thinking’) and negative automatic thoughts. These entrenched thinking patterns lead to depressed feelings, lack of energy and lack of activity, further reinforcing the depressive symptom cycle.

Based on this model, CBT is initially aimed at teaching clients to recognise and monitor negative thinking patterns. Clients are introduced to the cognitive model of depression and presented with a case conceptualisation of the model as it applies to their specific circumstances. A major part of early therapy is ensuring that the client understands the link between thoughts and emotions and the common errors in
thinking that people experience when depressed. Clients are required to keep a written record of internal or external events that trigger negative emotions, and the corresponding thoughts that link the event to the emotion. This enables the client to recognise and challenge negative thinking patterns by engaging in various cognitive strategies (known collectively as cognitive restructuring). Common strategies in therapy include reality testing, examining the evidence for negative thoughts, experimental tests for beliefs and generating alternatives. The repeated practice of recognising and reframing negative automatic thoughts enables the client to develop more accurate and helpful thinking styles.

Beck's original cognitive conceptualisation was extended to incorporate behavioural models of depression that emphasise the environmental factors that reinforce depression (Jacobson, Martell, & Dimidjian, 2001). Hence, the behavioural component of CBT is aimed at recognising and altering the behaviours (such as withdrawal and avoidance) that deprive the individual of positive, self-efficacious experiences. A common therapeutic tool is pleasant events scheduling, which is aimed at increasing the frequency with which the client engages in activities that are both pleasurable and involve mastery (Lewinsohn & Libet, 1972). Another common behavioural strategy in CBT is guided relaxation training, which teaches the client breathing and muscle relaxation techniques to reduce tension and improve mood.

In most clinical practice, CBT is tailored to the client, based on a comprehensive cognitive behavioural conceptualisation of their presenting problems. CBT can be conducted as a brief, manualised therapy, with a standard course of treatment lasting between 10 and 20 sessions. CBT is highly structured and is conducted in phases, usually beginning with psychoeducation and behavioural activation strategies, followed by cognitive restructuring and relapse prevention (Beck, 1995). Homework exercises are believed to play a role in the success of CBT, as they
provide an opportunity for the client to practice and generalise the skills learned in therapy between sessions.

In the treatment of anxiety disorders, less emphasis is placed on cognitive restructuring and greater emphasis is placed on behavioural techniques, in particular, exposure therapy, breathing retraining and guided relaxation. Exposure therapy involves directly exposing the client to their feared stimulus in a graded manner, in order for the client to experience an initial spike in anxiety followed by a gradual decrease, leading to eventual habituation to the feared stimulus. This technique allows the client to experience a non-anxious emotional response to the feared stimulus, which is otherwise impossible if the client continually avoids the feared stimulus. Exposure can be imagined (e.g. for PTSD, re-imagining a traumatic event) or in-vivo (e.g. for specific phobia, social phobia or OCD, exposure to the actual fear-inducing stimulus). Clients are also taught in therapy to manage anxious arousal and bodily sensations through progressive muscle relaxation and controlled breathing. Cognitive restructuring for anxiety disorders involves thought identification and monitoring, examining the evidence for anxious thoughts and replacing inaccurate and unhelpful thoughts with more realistic appraisals.

A large number of randomised controlled trials have established the efficacy of CBT for mood and anxiety disorders. For depression, multiple meta-analyses have shown that cognitive therapy is more efficacious than placebo or no treatment control conditions, and is as efficacious as behavioural therapy, interpersonal psychotherapy and psychodynamic therapy (Dobson, 1989; Gloaguen, Cottraux, Cucherat, & Blackburn, 1998; Robinson, Berman, & Neimeyer, 1990; Wampold, Minami, Baskin, & Callen Tierney, 2002). Average effect sizes for cognitive therapy relative to no treatment, wait-list or placebo controls range from 0.28 (for placebos) to 0.84 (for no treatment and wait-list controls) (Gloaguen et al., 1998; Robinson et al., 1990). CBT
is considered to be at least as effective as other psychotherapies, with average effect sizes in favour of CBT ranging from 0.16 to 0.24 (Dobson, 1989; Gloaguen et al., 1998; Robinson et al., 1990; Wampold et al., 2002). CBT has also been shown to be at least as effective, if not more effective, than antidepressant medication in the acute treatment phase, with effect sizes of 0.38 to 0.53 for mild to moderate depressive symptoms and 0.16 for moderate to severe symptoms (DeRubeis, Hollon, Amsterdam, Shelton, Young, Salomon, O'Reardon, Lovett, Gladis, Brown, & Gallop, 2005; Dobson, 1989; Gloaguen et al., 1998; Robinson et al., 1990).

For anxiety disorders, cognitive behaviour therapy has been shown to be more effective than placebos, with average effect sizes of 0.51 to 0.71 for GAD (Borkovec & Ruscio, 2001; Gould, Otto, Pollack, & Yap, 1997; Hofmann & Smits, 2008), 0.36 to 0.62 for social phobia (Acarturk, Cuijpers, van Straten, & de Graaf, 2009; Hofmann & Smits, 2008), 0.35 to 0.65 for panic disorder (Gould, Otto, & Pollack, 1995; Hofmann & Smits, 2008), and 1.37 for OCD (Hofmann & Smits, 2008). Relative to no treatment or wait-list controls, CBT is effective for panic disorder, social phobia, OCD, GAD and PTSD (Norton & Price, 2007), with average effect sizes of 0.82 to 1.09 for GAD (Borkovec & Ruscio, 2001; Gould et al., 1997), 0.86 for social phobia (Acarturk et al., 2009), 0.91 for panic disorder (Gould et al., 1995), and 0.47 for PTSD (National Collaborating Centre for Mental Health, 2005).

It should be noted that, as with most treatment approaches, psychotherapy has shortcomings. Psychotherapy is intensive and requires a significant time commitment from the client and the practitioner. High client motivation is necessary to attend regular sessions and commit to completing homework exercises outside therapy sessions. Significant cost is also associated with psychotherapy, since a 'standard' course of treatment is approximately 10 to 20 sessions, and additional sessions may be required depending on an individual's case.
There are numerous treatment options for individuals who experience mood and anxiety disorders. Many factors can influence treatment choice, including evidence of treatment efficacy, treatment cost and accessibility, severity and chronicity of symptoms, factors affecting treatment tolerability (e.g. side effects), and client preference. Complementary and psychotherapeutic treatments share the advantages of tolerability and greater client control, but complementary therapies, unlike CBT, do not have a solid, well-established evidence base. CBT and antidepressants share the advantage of a sound evidence-base. However, unlike CBT, antidepressants are generally associated with adverse side effects and do not show lasting gains following treatment discontinuation (Hollon, DeRubeis, Shelton, Amsterdam, Salomon, O'Reardon, Lovett, Young, Haman, Freeman, & Gallop, 2005). Thus, CBT shares many of the positive qualities of other treatment approaches, without their primary shortcomings. It should be noted, however, that in current practice no one treatment approach is regarded as a panacea, and it is common for medical, psychotherapeutic and complementary treatments to be used concurrently and/or at different stages of a mood or anxiety disorder.

1.1.7 Difficulties with access to treatment

Despite the availability of effective, evidence-based psychological and pharmacological treatments, a significant proportion of people who experience mental disorders do not seek or receive appropriate treatment. Approximately two thirds of those with a 12 month mental disorder do not access health services (Australian Bureau of Statistics, 2007; Kessler, Demler, Frank, Olsson, Pincus, Walters, Wang, Wells, & Zaslavsky, 2005c; Wang, Lane, Olsson, Pincus, Wells, & Kessler, 2005).
Rates of help seeking are slightly higher for those with mood disorders (36.5%) relative to those with anxiety disorders (26.1%) (Alonso, Angermeyer, Bernert, Bruffaerts, Brugha, Bryson, de Girolamo, Graaf, Demyttenaere, Gasquet, Haro, Katz, Kessler, Kovess, Lepine, Ormel, Polidori, Russo, Vilagut, Almansa, Arbabzadeh-Bouchez, Autonell, Bernal, Buist-Bouwman, Codony, Domingo-Salvany, Ferrer, Joo, Martinez-Alonso, Matschinger, Mazzi, Morgan, Morosini, Palacin, Romera, Taub, & Vollebergh, 2004). There is evidence to suggest that significant delays occur between the onset of depression or anxiety symptoms and first consultation with a mental health professional, ranging on average, from 6 to 14 years (Christian, Gilman, Guardino, Mickelson, Morselli, Olsson, & Kessler, 2000; Kessler, Olsson, & Berglund, 1998).

Reasons for delayed help seeking are numerous and varied (Thompson, Hunt, & Issakidis, 2004). These can include lack of knowledge about mental illness or available treatments (Thompson et al., 2004), fear of the stigma associated with mental illness (Barney, Griffiths, Jorm, & Christensen, 2006; Dinos, Stevens, Serfaty, Weich, & King, 2004), and preference to manage the symptoms of the illness alone (Christian et al., 2000; Meltzer, Bebbington, Brugha, Farrell, Jenkins, & Lewis, 2000; Wells, Robins, Bushnell, Jarosz, & Oakley-Browne, 1994). Individuals also report that structural barriers can impede help seeking, including the cost of care, lack of health insurance, inconvenient clinic or office hours and the unavailability of health care when it is needed (Fox, Blank, Rovnyak, & Barnett, 2001; Mojtabai, 2009; Sareen, Jagdeo, Cox, Clara, ten Have, Belik, de Graaf, & Stein, 2007). Despite the similar prevalence rates of depression and psychological distress in rural compared to metropolitan locations, those in rural locations face significant challenges in terms of access to mental health care. These challenges include a relative lack of local health care providers, and the potentially greater visibility of mental health problems in
smaller communities. Young men in rural locations are significantly less likely to seek professional mental health care than their metropolitan counterparts (Caldwell, Jorm, & Dear, 2004).

Of those who do seek treatment for mental health problems, significant proportions receive an inadequate level of care. In the Australian National Survey of Mental Health and Wellbeing, of those respondents with a 12 month mental disorder who sought treatment, approximately 25% to 35% reported that their treatment needs were only partially met or not met at all (Australian Bureau of Statistics, 2007; Mojtabai, 2009). Higher estimates of treatment inadequacy have been reported in the United States, where 78.2% and 81.1% of those who sought help for a mood and anxiety disorder reportedly did not receive ‘minimally adequate care’ in the previous 12 months (Wang, Demler, & Kessler, 2002). Inadequate care may be due, in part, to the complexities associated with the referral pathway from general practice to specialist mental health care. Depression commonly goes undetected in primary care (Rost, Zhang, Fortney, Smith, Coyne, & Smith, 1998; Wells, Hays, Burnam, Rogers, Greenfield, & Ware, 1989a). General practitioners report a lack of time and limited availability of mental health services as major obstacles to referring clients to specialist treatment (Telford, Hutchinson, Jones, Rix, & Howe, 2002). According to primary care physicians, the accessibility of specialist medical services is significantly higher than the accessibility of high quality specialist mental health services (Van Voorhees, Wang, & Ford, 2003). Given the high demand for mental health professionals and the accessibility problems associated with this, research efforts have focused on the development of alternative models of mental health care that directly address common barriers to help seeking as well as the issue of unmet demand for adequate care.
1.1.8 Improving access to psychological treatment

One potential means of increasing treatment accessibility is to provide consumers with resources for self-care, including high quality educational and psychotherapeutic treatments for mood and anxiety disorders. Self-help treatments (also known as ‘bibliotherapy’ when in the form of books) refer to therapeutic techniques or strategies that an individual applies independently to his or herself, usually following step-by-step instructions. Self-help treatments can be delivered by many different media, including books, CDs, DVDs, or via the computer using the Internet or CD-ROM. Structured psychotherapies such as CBT are highly adaptable to a self-help format, given that many of the techniques used in CBT (such as psychoeducation, cognitive restructuring, relaxation, behavioural activation and exposure) can be broken down into straightforward, easy-to-follow steps. The most widely used and evaluated self-help approaches are book or manual based, of the most researched are *Control Your Depression* (Lewinsohn, Munoz, Youngren, & Zeiss, 1978) and *Feeling Good* (Burns, 1980). Although self-help treatments are primarily designed to be administered without the input of a mental health professional (e.g. therapist), some self-help methods are used as an adjunct to face-to-face therapy, and are utilised by clients between therapy sessions, with ongoing monitoring from the therapist via the telephone or e-mail. In some cases, a self-help treatment may constitute the central part of an individual’s care, with the ongoing, secondary support of a therapist (Van't Hof, Cuijpers, & Stein, 2009).

Self-help approaches have a number of advantages over traditional forms of treatment. Firstly, they have the potential to save a considerable amount of therapist time. Like most, if not all, psychotherapeutic treatments, CBT is time consuming and requires considerable therapist energy both during the client consultation and in planning between sessions. Secondly, it has been argued that there are not enough
adequately trained practitioners to deliver psychotherapy given the current rate of
demand (Haaga, 2000). Self-administered treatments are cost-effective in that they
require little or no therapist time, potentially enabling clinicians to increase the
numbers of patients they can treat. For this reason, self-help treatments are a key
element of stepped health care models, which are designed to maximise treatment
resources and improve treatment efficiency and accessibility. In stepped-care
treatment models, clients are initially presented with a low intensity intervention, and
then proceed to more complex, intensive treatment approaches if necessary (Davison,
2000). An important feature of a stepped-care model is that it expands the breadth of
mental health care while maintaining an evidence-based standard of treatment. In a
stepped-care approach, it is acknowledged that not all of those who experience mood
or anxiety disorders require the same type or intensity of treatment. Self-help
treatments introduce variety and flexibility in treatment options and may be preferred
by and/or better suited to some individuals. Bibliotherapy has been proposed by
Scogin and colleagues as a first step in a stepped care model for the treatment of
depression (Scogin, Hanson, & Welsh, 2003).

Self-help treatments allow the client to work at his or her own pace, in an
environment and at a time of their own choosing. This may increase the sense of
control and empowerment that individuals perceive they have over their treatment,
potentially improving the tolerability of the treatment and adherence. Self-help
treatments may be particularly appealing to those who are reluctant to seek face-to-
face therapy in the first instance, including those who fear the stigma that is
commonly associated with mental illness, or those who feel extreme sensitivity to
sharing personal information with others. Engaging with a self-help treatment may
increase an individual's readiness to seek further treatment by improving their
knowledge about what to expect from psychotherapy. It has been suggested that self-
help may be an effective early intervention strategy and prevent the development of more severe symptoms or a clinical diagnosis of depression (Munoz, 1993). Self-help treatments may also be suited to individuals for whom disease-related factors impede help seeking. Those with severe symptoms of social anxiety disorder, agoraphobia, or OCD may be housebound and unable to seek treatment in a clinician’s office.

Self-help interventions have been found to be effective. A number of meta-analyses of self-help interventions for depression and anxiety disorders have been conducted (Van’t Hof et al., 2009). The strongest effects for self-help treatments have been found relative to no treatment or wait-list control conditions, with effect sizes including 0.73 for affective disorders and 0.92 for phobias (Scogin, Bynum, Stephens, & Calhoun, 1990), 0.74 for depression and 1.11 for fear reduction (Gould & Clum, 1993), 0.91 for anxiety and 0.57 for depression (Marrs, 1995), 0.82 for depression (Cuijpers, 1997), 0.84 for anxiety and depressive disorders combined (den Boer, Wiersma, & Van Den Bosch, 2004), 0.77 for depression (Gregory, Schwer Canning, Lee, & Wise, 2004), 1.36 for depression (Anderson, Lewis, Araya, Elgie, Harrison, Proudfoot, Schmidt, Sharp, Weightman, & Williams, 2005), 0.68 for anxiety disorders (Hirai & Clum, 2006), 1.00 for MDD and anxiety disorders combined (Menchola, Arkowitz, & Burke, 2007) and 0.82 for depressive symptoms (Gellatly, Bower, Hennessy, Richards, Gilbody, & Lovell, 2007).

Average effect sizes for self-help treatments compared with treatment as usual or placebo conditions are slightly lower. Bower and colleagues found an average effect size of 0.41 for self-help treatments of anxiety, anxiety and depression, stress and chronic fatigue relative to usual primary care conditions (Bower, Richards, & Lovell, 2001). Hirai and Clum found an average effect of 0.50 for self-help compared with placebo conditions and 0.23 for self-help compared with monitoring conditions (Hirai & Clum, 2006). Den Boer and colleagues found self-help treatments to be
equivalent to treatment as usual conditions (−0.03) (den Boer et al., 2004), as did Gellatly and colleagues, who found an average effect size of 0.14 for self-help relative to usual care or attention placebo controls (Gellatly et al., 2007).

The effectiveness of self-help treatments relative to therapist administered treatments is still controversial. For depression, Cuijpers found that self-help treatments were roughly equivalent to individual (d = 0.10) and group-based (−0.10) therapies in community-based adult samples (Cuijpers, 1997). Hirai and Clum found an average effect size of −0.42 for self-help compared with therapist directed interventions in clinical and subclinical adult populations with anxiety symptoms (Hirai & Clum, 2006). Similarly, slightly poorer outcomes for self-help treatments relative to therapist administered treatments were found by Menchola and colleagues in adults with clinical levels of depression and anxiety (−0.31) (Menchola et al., 2007).

These meta-analyses highlight some key issues in the evaluation of self-help treatments. Several authors reported that despite the inclusion of some well-designed studies (controlled pre-post designs and randomised controlled trials), the quality of most studies was generally low (Anderson et al., 2005; Cuijpers, 1997). None of the published trials described in Anderson’s meta-analysis met CONSORT guidelines, and Bower and colleagues reported that many of the studies included in their review had small sample sizes, high levels of attrition, inadequate description of participants or treatments, inadequate randomisation and lack of specificity in analysis. Cuijpers’ review included a smaller number of higher quality studies that used suitable control groups and appropriate randomisation methods. However, many of these studies also had small sample sizes (less than 10 participants per condition). Although all of the studies included in den Boer’s review were randomised controlled trials, many of these studies did not employ intention to treat analysis.
A second issue is the role of professional or non-professional support in the efficacy of self-help treatments. In their meta-analysis, Anderson and colleagues reported a considerably higher average effect size for self-help treatments than other meta-analyses. This may have been because all participants in the studies reviewed by Anderson received some form of regular personal contact during the course of treatment. In the meta-analysis by Gellatly and colleagues, stronger effects were found for studies of interventions with professional or non-professional input, compared with those using 'pure' self-help treatments. However, the authors found no difference in the efficacy of support provided by those with specialised, postgraduate mental health training (professionals) and those without this qualification (non-professionals). They also found no clear advantage for 'supportive' contact (specialised problem-solving advice and support from a therapist) over simple monitoring (checking that the participants have used the materials and responding to queries). This finding was mirrored in Hirai and Clum's meta-analysis of self-help treatments for anxiety disorders, in which they found no differences in effectiveness in terms of amount or type of minimal contact provided. In contrast to the findings by Gellatly and colleagues, Marrs found no advantage of minimal contact compared to no contact (Marrs, 1995). However, both Marrs and Gellatly and colleagues argue that their findings regarding the efficacy of minimal contact are tentative, given that many of the studies included in their reviews did not accurately report the nature of the contact provided to participants, and thus, were excluded from analysis.

In their discussion, den Boer and colleagues highlighted the potential for volunteers or lay workers to deliver minimal guidance in self-help treatments. This has been examined previously by Christensen and Jacobson, who reviewed the evidence for the relationship between professional mental health training, therapist experience and treatment outcome (Christensen & Jacobson, 1994). They concluded
that 'professional training and clinical experience may not add to the efficacy of psychotherapy', instead suggesting that research efforts be directed at examining the role of non-professionals in the provision of guidance in self-help treatments (Christensen & Jacobson, 1994).

The promise of self-help treatments is great, given their efficacy and ability to reach those in need of treatment. However, there is a need to improve the quality of the research evaluating self-help treatments. In particular, it is important that studies include a clear and detailed description of the treatment offered (including components of the intervention materials, the type, quality and frequency of human involvement, and the extent of this involvement before, during and after the treatment). They should also specify the target disorder and the focus of the intervention (e.g. early intervention, prevention, or relapse prevention). Studies should be adequately powered and employ intention to treat data analyses. Finally, it is important to investigate the use of self-help treatments in a variety of settings in which those with clinical levels of symptoms are served, including private practice, general practice, hospital, and community-based settings. High quality, evidence-based self-help treatments may be particularly suited to delivery in community-based settings given that such delivery does not require extensive clinical expertise or training.

Inconsistencies exist in the evidence for guided versus pure self-help treatments. Hence, the value of incorporating support or monitoring in self-help treatments is the subject of ongoing debate. Moreover, self-help treatments require ongoing evaluation given recent developments in the sophistication of these interventions. For example, further investigation is needed to develop optimal modes for self-help delivery. Book-based self-help treatments are limited in terms of their
ability to remain current, to actively engage clients and to present therapeutic content in a dynamic, tailored manner. Self-help books that are heavily text-based may be inaccessible to individuals with low levels of reading skill. An important innovation in self-help treatments has been the use of technology to deliver the content in different ways, such as via the Internet.

1.2 Internet-based interventions

1.2.1 Introduction

The number of Internet self-help applications for mood and anxiety disorders have been growing rapidly over the past 10 years. Numerous randomised controlled trials have demonstrated the efficacy of many of these programs. However, there are significant differences in the settings in which these programs are delivered and the types of support provided. Internet-based treatments can increase access to treatment and lower its cost. However, Internet interventions have been associated with low rates of treatment adherence. The following section examines the evidence for Internet-based treatments, including a discussion of the use of automated and professional support in the delivery of these programs. Following this, the advantages and limitations of Internet-based treatments are discussed.

1.2.2 Types of Internet-based interventions

Internet-based mental health treatment has evolved as a modern form of bibliotherapy that utilises computer software and the Internet to deliver psychotherapeutic content (Andersson & Carlbring, 2003). The last 15 years have seen rapid growth in popularity of the Internet for seeking health care information. According to data from the Pew Center’s Internet and American Life Project, 80% of
adult Internet users have used the web to obtain health or medical information (Fox, 2011). Many of these 'health seekers' reported that the online health information was useful, and that it improved the way in which they managed their healthcare (Fox, 2011). In an earlier survey of online health seekers, respondents reported that seeking health information over the Internet led them to interact with health care professionals differently and that online health information impacted their decision making about treatment. They also highlighted the importance of being able to access health information promptly, conveniently and anonymously. Given the stigma that is associated with mental disorders, 28% of respondents indicated that they had used the Internet to obtain information about a sensitive health topic such as anxiety, depression, or stress (Fox & Jones, 2009).

There are many varieties of online interventions (Ybarra & Eaton, 2005). They vary in terms of complexity, degree of client engagement and intended purpose. More passive online interventions include those that provide information and psychoeducation for mental health problems. These websites commonly contain information about the symptoms, diagnosis and causes of mental disorders, and descriptions of the types of available treatments and how these treatments can be accessed. There has been concern about the quality of some online information websites. A number of studies report that the quality of depression websites is low (Berland, Elliott, Morales, Algazy, Kravitz, Broder, Kanouse, Munoz, Puyol, Lara, Watkins, Yang, & McGlynn, 2001; Griffiths & Christensen, 2000, 2002). Some online interventions include screening tools to assist individuals to assess their current level of symptoms. Reliable and valid scales such as the Centre for Epidemiologic Studies Depression Scale (CES-D) are freely available for individuals to complete online and receive feedback about their current levels of symptomatology.
More interactive Internet-based interventions include online support groups, individual and group therapies conducted online by a mental health professional and fully automated, self-directed therapy programs. Online support groups are popular and provide an anonymous, mutually supportive environment that may appeal to individuals who find it difficult to disclose sensitive information to a mental health professional. However, there is minimal evidence for the efficacy of online support groups given a lack of randomised controlled trials evaluating these treatments (Griffiths, Callear, & Banfield, 2009). E-mail and real-time chat programs have been successfully used by psychologists to consult with their clients and conduct individual therapy sessions remotely, as well as group-based CBT to clients en masse. Self-directed online therapies have also been used to deliver treatment to large numbers, without the involvement of a mental health professional. This form of online treatment most closely resembles traditional forms of self-help, as online self-directed programs contain therapeutic content and exercises that the individual can access and implement at their own pace. Many of these programs are based on the principles of CBT and contain psychoeducation, cognitive restructuring and behavioural activation techniques, enable online self-monitoring and provide automated, tailored feedback. A number of these programs are available free of charge online, and are accessed by large numbers of people around the world (Griffiths, Farrer, & Christensen, 2007).

Like other forms of self-help treatment, Internet-based interventions vary in terms of the amount of human input that is involved in the delivery of the treatment. The following categories have been used to classify self-help treatments according to the type and amount of contact provided: (1) 'pure' self-help treatment (human contact for assessment, at most), (2) predominantly self-help treatment (human contact beyond assessment for periodic check-ins, and teaching clients how to use therapeutic tools. This level of contact may also include automated e-mail reminders
sent to clients throughout treatment), (3) minimal-contact self-help treatment (active involvement of a therapist to assist the client to engage with therapeutic materials) and (4) predominantly therapist administered self-help treatment (regular contact with a therapist for face-to-face sessions, which is augmented by a self-help treatment (Glasgow & Rosen, 1978; Newman, Szkodny, Llera, & Przeworski, 2011).

The type of contact provided in Internet-based treatments also varies in terms of who is providing the contact. Human support from therapists and other qualified mental health practitioners is an integral component of the intervention when self-help treatments are used in conjunction with regular therapy sessions. Therapists are also generally involved in the provision of support in minimal-contact self-help treatments. However, both therapists and non-professionals (such as trained volunteers, lay people and non-clinical research staff) have been used to provide contact and monitoring in pure and predominantly self-help treatments. Given the cost and shortage of qualified mental health clinicians, the use of non-professionals in the provision of support in self-help treatments has potential advantages. The use of non-professionals may further improve the cost-effectiveness of self-help treatments and make more efficient and effective use of the expertise in the mental health workforce by reserving therapists for more intensively supportive roles.

1.2.3 Effectiveness of Internet-based interventions

A number of systematic and quasi-systematic reviews of the literature on Internet interventions for mental health disorders have been conducted. These reviews have concluded that Internet-based treatments are effective for a range of disorders and related conditions including depression, anxiety, stress, insomnia, headache, eating disorders, obesity, complicated grief, alcohol use, and smoking
prevention (Griffiths & Christensen, 2006; Hailey, Roine, & Ohinmaa, 2008; Postel, de Haan, & De Jong, 2008). However, the authors of these reviews also highlight the methodological limitations of Internet intervention studies including inadequate reporting of randomisation procedures, inconsistencies in reporting treatment compliance, high dropout rates, small sample sizes, failure to employ intention-to-treat analyses, short follow-up periods, and failure to control for the amount of contact received by intervention recipients (Griffiths & Christensen, 2006; Postel et al., 2008).

Five meta-analyses and one systematic review have focused on randomised controlled trials of self-directed Internet-based treatments for depression and/or anxiety disorders (Andersson & Cuijpers, 2009; Andrews, Cuijpers, Craske, McEvoy, & Titov, 2010; Cuijpers, Marks, van Straten, Cavanagh, Gega, & Andersson, 2009; Griffiths, Farrer, & Christensen, 2010; Reger & Gahm, 2009; Spek, Cuijpers, Nyklicek, Riper, Keyzer, & Pop, 2007a). Four of these reviews included both Internet-based and non-Internet, computer-based interventions, whereas the reviews conducted by Spek and colleagues and Griffiths and colleagues focused solely on interventions delivered via the Internet. The key features of these reviews are summarised in Table 1.1, including the type of disorder that is the focus of the review, the study inclusion criteria, and a list of the included studies.
Table 1.1 Systematic reviews and meta-analyses of Internet-based interventions for depression and/or anxiety disorders in adults

<table>
<thead>
<tr>
<th>Review/meta-analysis (authors, year)</th>
<th>Disorder(s)</th>
<th>Inclusion criteria</th>
<th>Internet-based treatment studies reviewed (first author, year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review/meta-analysis (authors, year)</td>
<td>Disorder(s)</td>
<td>Inclusion criteria</td>
<td>Internet-based treatment studies reviewed (first author, year)</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>------------</td>
<td>--------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Review/meta-analysis (authors, year)</td>
<td>Disorder(s)</td>
<td>Inclusion criteria</td>
<td>Internet-based treatment studies reviewed (first author, year)</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-------------</td>
<td>--------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Richards (2006)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Robinson (2010)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Selmi (2009)&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Titov (2008a)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Titov (2008b)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Titov (2008c)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Titov (2009)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Titov (2010)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wims (2010)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wright (2005)&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup>Computer-based interventions.
<sup>b</sup>Comparison/control groups comprise an active treatment (or treatment components).
<sup>c</sup>Intervention for symptoms of stress, rather than depression or anxiety symptoms.
<sup>d</sup>Interventions conducted with child/adolescent populations.
<sup>e</sup>Not a self-help program, online CBT delivered by a therapist in real time.

Spek and colleagues compared cognitive behaviour therapy for depression and anxiety disorders with wait-list, treatment as usual and attention placebo control groups and found a moderate average effect size across all treatment studies ($d = 0.40$) (Spek et al., 2007a). The mean effect size for depression interventions ($d = 0.27$) was smaller than that for interventions for anxiety disorders ($d = 0.96$). A subgroup analysis comparing interventions both with and without therapist support found that mean effect sizes for interventions in which therapist support was provided were higher ($d = 1.0$) than mean effect sizes for interventions with no therapist support ($d = 0.24$).

In their meta-analysis of Internet-based treatments for depression, Andersson and Cuijpers found an overall effect size of 0.37 for Internet-based treatments relative to control groups overall, with lower effects for treatments compared with treatment as usual control groups ($d = 0.23$) and higher effects for treatments compared with wait-list controls ($d = 0.56$) (Andersson & Cuijpers, 2009). They also found higher effect sizes for treatments in which professional support was provided ($d = 0.61$), compared to treatments without professional support ($d = 0.18$).
Reger and Gahm reported an average effect size of 0.77 for anxiety disorder treatments relative to wait-list conditions, and a slightly larger average effect size \(d = 0.88\) for treatments relative to placebo conditions (Reger & Gahm, 2009). Both Internet and computer-based treatments were found to be as effective as treatment as usual \(d = 0.00\).

Relative to Reger and Gahm, Cuijpers and colleagues found a slightly larger mean effect size of 1.08 for anxiety disorder treatments relative to control conditions (Cuijpers et al., 2009). In their meta-analysis, computer-based treatments were found to be as effective as face-to-face therapy \(d = -0.06\).

In their meta-analysis of Internet-based and computer-based therapies for depression and anxiety disorders, Andrews and colleagues found a large overall effect of 0.88 for depression and anxiety disorder interventions compared with all types of control groups (Andrews et al., 2010). Similar to Spek’s meta-analysis, higher average effect sizes was found for anxiety disorder interventions (social phobia: 0.92, panic disorder: 0.83, GAD: 1.12) compared with interventions for depression (0.78).

Griffiths and colleagues conducted a systematic review of Internet-based interventions for depression and anxiety disorders, examining CBT as well as other therapeutic approaches (Griffiths et al., 2010). The review identified 26 trials published in 29 reports, although two of these studies/reports were interventions for child or adolescent populations. Twenty-three of the 26 included trials showed evidence of treatment efficacy relative to control groups. Effect size differences (calculated by subtracting the within group effect size for the control group from the within group effect size for the intervention group) ranged from 0.42 to 0.65 for depression interventions for those with clinically significant symptoms and 0.29 to 1.74 for interventions for those with a diagnosed anxiety disorder.
Using the same methodology described by Griffiths and colleagues (Griffiths et al., 2010), an updated search of the literature was conducted for this thesis to identify any recently published randomised controlled trials of Internet-based interventions for depression or anxiety disorders that had not been included in any previously conducted reviews or meta-analyses. Six additional studies and follow-ups were identified; one study of an intervention for depression and five studies of interventions for anxiety disorders. A summary of the newly identified trials and follow-ups, as well as those identified in previous reviews (excluding those that do not meet the criteria for inclusion in the review by Griffiths and colleagues) are provided in Table 1.2. The following characteristics of each trial are reported: name of intervention program, author and date of the study, whether the study has been included in a previous review or meta-analysis, number of participants, participant symptoms/diagnoses, type of intervention, type of control group, level of human input (according to the classification by Glasgow and Rosen and Newman and colleagues), amount/type of human input, whether human input is provided by a professional or non-professional, and whether the intervention was reported as effective overall by the authors. As described above, human input was considered to be ‘professional’ if it was provided by a person with specialised post-graduate training in clinical psychology (e.g. psychologist, therapist, psychiatrist or clinician) and input was considered ‘non-professional’ if it was provided by a person without specialised post-graduate training in clinical psychology (e.g. volunteer, lay-person, or non-clinically trained research staff).
Table 1.2 Summary of randomised controlled trials of Internet-based interventions for depression and anxiety

<table>
<thead>
<tr>
<th>Program</th>
<th>Study</th>
<th>Included in previous review?</th>
<th>Participants</th>
<th>Participant symptoms</th>
<th>Intervention</th>
<th>Control</th>
<th>Level of human input</th>
<th>Amount of human input</th>
<th>Professional vs non-professional input</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Depression</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overcoming depression on the Internet (ODIN)</td>
<td>(Clarke, Reid, Eubanks, O'Connor, DeBar, Kelleher, Lynch, &amp; Nunley, 2002)</td>
<td>Yes</td>
<td>N = 299</td>
<td>Prior diagnosis of depression = 223</td>
<td>iCBT</td>
<td>TAU + psycho-education</td>
<td>SH</td>
<td>N/A</td>
<td>N/A</td>
<td>No advantage of iCBT over control</td>
</tr>
<tr>
<td></td>
<td>(Clarke, Eubanks, Reid, Kelleher, O'Connor, DeBar, Lynch, Nunley, &amp; Gullion, 2005)</td>
<td>Yes</td>
<td>N = 255</td>
<td>Prior diagnosis of depression = 200</td>
<td>iCBT</td>
<td>TAU + psycho-education</td>
<td>PSH</td>
<td>1^a = 3 e-mail reminders 1^b = 3 brief telephone reminders (&lt;5 mins)</td>
<td>Non-professional (Research staff)</td>
<td>iCBT with e-mail and telephone equivalent, both superior to control</td>
</tr>
<tr>
<td>MoodGYM</td>
<td>(Christensen, Griffiths, &amp; Jorm, 2004a)</td>
<td>Yes</td>
<td>N = 525</td>
<td>Elevated psychological distress (K10&gt;22)</td>
<td>1^a = iCBT 1^b = psycho-education</td>
<td>Attention control</td>
<td>PSH</td>
<td>Brief weekly telephone reminders</td>
<td>Non-professional (Trained laypeople)</td>
<td>iCBT and psycho-education superior to control</td>
</tr>
<tr>
<td>Program</td>
<td>Study</td>
<td>Included in previous review?</td>
<td>Participants</td>
<td>Participant symptoms</td>
<td>Intervention</td>
<td>Control</td>
<td>Level of human input</td>
<td>Amount of human input</td>
<td>Professional vs non-professional input</td>
<td>Outcome</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>--------------</td>
<td>----------------------</td>
<td>--------------</td>
<td>---------</td>
<td>----------------------</td>
<td>----------------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>(Mackinnon, Griffiths, &amp; Christensen, 2008)</td>
<td>Yes</td>
<td>N = 525</td>
<td>I = 182</td>
<td>I = 165</td>
<td>C = 178</td>
<td></td>
<td></td>
<td></td>
<td>iCBT superior to control at 6 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Elevated</td>
<td>psychological</td>
<td>iCBT = iCBT</td>
<td>Attention control</td>
<td>PSH</td>
<td>Brief weekly telephone reminders</td>
<td>Non-professional (Trained laypeople)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>distress</td>
<td>education</td>
<td>iCBT = psycho-education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Superior to control over 12 months</td>
</tr>
<tr>
<td>Internet Psykiatri</td>
<td>(Andersson, Bergstrom, Holländare, Carlbring, Kaldo, &amp; Ekselius, 2005)</td>
<td>Yes</td>
<td>N = 117</td>
<td>I = 57</td>
<td>C = 60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>iCBT superior to control at 6 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Likely</td>
<td>diagnosis of depression, elevated depression symptoms</td>
<td>iCBT + online discussion group</td>
<td>Attention control (online discussion group)</td>
<td>MC</td>
<td>E-mail feedback from therapist, monitoring of discussion group</td>
<td>Professional (Therapist) Superior to control. Outcome maintained at 6 months</td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td>Study</td>
<td>Included in previous review?</td>
<td>Participants</td>
<td>Participant symptoms</td>
<td>Intervention</td>
<td>Control</td>
<td>Level of human input</td>
<td>Amount of human input</td>
<td>Professional vs non-professional input</td>
<td>Outcome</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>--------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
<td>---------------</td>
<td>---------------------</td>
<td>----------------------</td>
<td>----------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>MoodHelper</td>
<td>(Clarke, Kelleher, Hornbrook, Debar, Dickerson, &amp; Gullion, 2009)</td>
<td>Yes</td>
<td>N = 160 I = 83 C = 77</td>
<td>Prior diagnosis of depression = 109 No prior diagnosis = 51</td>
<td>iCBT</td>
<td>TAU + psycho-education</td>
<td>SH</td>
<td>3 postcard reminders</td>
<td>N/A</td>
<td>Small advantage of iCBT over control</td>
</tr>
<tr>
<td>Interapy</td>
<td>(Ruwaard, Schrieken, Schrijver, Broeksteeg, Dekker, Vermeulen, &amp; Lange, 2009)</td>
<td>Yes</td>
<td>N = 54 I = 36 C = 18</td>
<td>Moderate depression symptoms (BDI score 10-29)</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>MC</td>
<td>E-mail feedback and instructions</td>
<td>Professional (Therapist)</td>
<td>iCBT superior to control at post-test and 18 months</td>
</tr>
<tr>
<td>The Sadness program</td>
<td>(Perini, Titov, &amp; Andrews, 2009)</td>
<td>Yes</td>
<td>N = 48 I = 29 C = 19</td>
<td>Diagnosis of depression</td>
<td>iCBT + online discussion group</td>
<td>Wait-list</td>
<td>MC</td>
<td>Weekly e-mail</td>
<td>Professional (Therapist)</td>
<td>iCBT + online discussion superior to control</td>
</tr>
<tr>
<td></td>
<td>(Titov, Andrews, Davies, McIntyre,</td>
<td>Yes</td>
<td>N = 141 I² = 47 I³ = 49 C = 45</td>
<td>Diagnosis of depression</td>
<td>I² = iCBT + technician assistance I³ = iCBT +</td>
<td>Wait-list</td>
<td>PSH/MC</td>
<td>I² = weekly e-mail or telephone contact, guided</td>
<td>I³ = Non-professional (Trained layperson)</td>
<td>iCBT with technician and clinician support</td>
</tr>
<tr>
<td>Program</td>
<td>Study</td>
<td>Included in previous review?</td>
<td>Participants</td>
<td>Participant symptoms</td>
<td>Intervention</td>
<td>Control</td>
<td>Level of human input</td>
<td>Amount of human input</td>
<td>Professional vs non-professional input</td>
<td>Outcome</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------</td>
<td>-----------------------------</td>
<td>--------------</td>
<td>----------------------</td>
<td>-----------------------</td>
<td>--------------------</td>
<td>----------------------</td>
<td>----------------------</td>
<td>----------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Robinson, &amp; Solley, 2010a)</td>
<td></td>
<td>Yes</td>
<td>N = 396</td>
<td>Not reported, recruitment via online depression groups</td>
<td>iCBT</td>
<td>TAU (wait-list)</td>
<td>SH</td>
<td>N/A</td>
<td>1b = Professional (Therapist)</td>
<td>equivalent, both superior to control at post-test and 4 months</td>
</tr>
<tr>
<td>Deprexis</td>
<td>(Meyer, Berger, Caspar, Beever, Andersson, &amp; Weiss, 2009)</td>
<td>Yes</td>
<td>N = 396</td>
<td>Not reported, recruitment via online depression groups</td>
<td>iCBT</td>
<td>TAU (wait-list)</td>
<td>SH</td>
<td>N/A</td>
<td>1b = Professional (Therapist)</td>
<td>equivalent, both superior to control at post-test and 6 months</td>
</tr>
<tr>
<td>Colour your life</td>
<td>(Spek, Nyklicek, Smits, Cuijpers, Riper, Keyzer, &amp; Pop, 2007b)</td>
<td>Yes</td>
<td>N = 301</td>
<td>Subthreshold depression</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>SH</td>
<td>N/A</td>
<td>1b = group CBT</td>
<td>iCBT and group CBT equivalent, both superior to control</td>
</tr>
</tbody>
</table>

Legend:
- N = number of participants
- 1a = group 1
- 1b = group 2
- TAU = Treatment as usual
- SH = Self-help
- iCBT = Internet delivered CBT
- 1b = weekly email or telephone contact, guided script, clinical advice
- 1b = Professional (Therapist)
- N/A = Not applicable
<table>
<thead>
<tr>
<th>Program</th>
<th>Study</th>
<th>Included in previous review?</th>
<th>Participants</th>
<th>Participant symptoms</th>
<th>Intervention</th>
<th>Control</th>
<th>Level of human input</th>
<th>Amount of human input</th>
<th>Professional vs non-professional input</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Spek, Cuijpers, Nyklicek, Smits, Riper, Keyzer, &amp; Pop, 2008a)</td>
<td>Yes</td>
<td>N = 301&lt;br&gt;l¹ = 102&lt;br&gt;i¹ = 99&lt;br&gt;c = 100</td>
<td>Subthreshold depression</td>
<td>l² = iCBT&lt;br&gt;i² = group CBT</td>
<td>Wait-list</td>
<td>SH</td>
<td>N/A</td>
<td>N/A</td>
<td>iCBT and group CBT equivalent, iCBT superior to control at 12 months</td>
<td></td>
</tr>
<tr>
<td>(de Graaf, Gerhards, Arntz, Riper, Metsemakers, Evers, Severens, Widdershoven, &amp; Huibers, 2009a)</td>
<td>No</td>
<td>N = 303&lt;br&gt;i¹ = 100&lt;br&gt;i² = 100&lt;br&gt;c = 103</td>
<td>Mild to moderate depression symptoms (BDI score &gt;16)</td>
<td>l² = iCBT&lt;br&gt;i² = iCBT + TAU</td>
<td>TAU (by GP)</td>
<td>SH</td>
<td>N/A</td>
<td>N/A</td>
<td>iCBT, iCBT + TAU, TAU equivalent</td>
<td></td>
</tr>
<tr>
<td>(Warmerdam, van Straten, Twisk, Riper, &amp; Cuijpers, 2008)</td>
<td>Yes</td>
<td>N = 263&lt;br&gt;i¹ = 88&lt;br&gt;i² = 88&lt;br&gt;c = 87</td>
<td>Moderate depression symptoms (CES-D score &gt;16)</td>
<td>l² = iCBT&lt;br&gt;i² = iPST</td>
<td>Wait-list</td>
<td>PSH</td>
<td>Weekly e-mail feedback</td>
<td>Non-professional (Masters-level psychology students)</td>
<td>iCBT and iPST equivalent, both superior to control</td>
<td></td>
</tr>
<tr>
<td>(No name)</td>
<td>(Patten, 2003)</td>
<td>Yes</td>
<td>N = 786&lt;br&gt;i = 420</td>
<td>34% previous episode of iCBT</td>
<td>Attention control</td>
<td>SH</td>
<td>N/A</td>
<td>N/A</td>
<td>No advantage of</td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td>Study</td>
<td>Included in previous review?</td>
<td>Participants</td>
<td>Participant symptoms</td>
<td>Intervention</td>
<td>Control</td>
<td>Level of human input</td>
<td>Amount of human input</td>
<td>Professional vs non-professional input</td>
<td>Outcome</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>--------------------------------------------</td>
<td>------------------------------</td>
<td>--------------</td>
<td>----------------------</td>
<td>--------------</td>
<td>---------</td>
<td>----------------------</td>
<td>------------------------</td>
<td>-----------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td>C = 366 depression</td>
<td>(psycho-education)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>iCBT over control</td>
</tr>
<tr>
<td>Depression, anxiety and stress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alles onder controle</td>
<td>(van Straten, Cuijpers, &amp; Smits, 2008)</td>
<td>Yes</td>
<td>N = 213</td>
<td>None</td>
<td>iPST</td>
<td>Wait-list</td>
<td>PSH</td>
<td>Automated weekly e-mail reminder, e-mail feedback</td>
<td>Non-professional (Trained psychology students)</td>
<td>iPST superior to control</td>
</tr>
<tr>
<td>Stress and Mood Management</td>
<td>(Billings, Cook, Hendrickson, &amp; Dove, 2008)</td>
<td>Yes</td>
<td>N = 309</td>
<td>None</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>SH</td>
<td>N/A</td>
<td>N/A</td>
<td>iCBT equivalent to control</td>
</tr>
<tr>
<td>Panic disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panic online (1 and 2)</td>
<td>(Klein &amp; Richards, 2001)</td>
<td>Yes</td>
<td>N = 23</td>
<td>Diagnosis of panic disorder</td>
<td>iCBT + self-monitoring</td>
<td>Self-monitoring</td>
<td>SH</td>
<td>N/A</td>
<td>N/A</td>
<td>iCBT + self-monitoring superior to control</td>
</tr>
<tr>
<td>Program</td>
<td>Study</td>
<td>Included in previous review?</td>
<td>Participants</td>
<td>Participant symptoms</td>
<td>Intervention</td>
<td>Control</td>
<td>Level of human input</td>
<td>Amount of human input</td>
<td>Professional vs non-professional input</td>
<td>Outcome</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>--------------</td>
<td>----------------------</td>
<td>-------------------</td>
<td>------------------------------------------------</td>
<td>----------------------</td>
<td>-----------------------</td>
<td>----------------------------------------</td>
<td>--------------------------</td>
</tr>
</tbody>
</table>
| (Klein, Richards, & Austin, 2006) | Yes                                                                 | N = 55                       |              | Diagnosis of panic disorder | I<sup>a</sup> = iCBT  
I<sup>b</sup> = CBT manual  
I<sup>c</sup> = CBT placebo (psychological education) | PSH/MC                 | I<sup>a</sup> = e-mail feedback and support  
I<sup>b</sup> = telephone monitoring  
C = telephone monitoring | Professional (Therapists) | iCBT and CBT manual superior to control |
| (Richards, Klein, & Austin, 2006) | Yes                                                                 | N = 32                       |              | Diagnosis of panic disorder | I<sup>a</sup> = iCBT  
I<sup>b</sup> = iCBT + stress management  
I<sup>c</sup> = CBT placebo (information) | PSH                    | e-mail monitoring and feedback (all conditions) | Professional/N on-professional (Therapist and doctoral students) | iCBT and iCBT + stress management superior to control |
<p>| Panikprojektet           | (Carlbring, Westling, Ljungstrand, Ekselius, &amp; Andersson, 2001)       | Yes                          | N = 41       | Diagnosis of panic disorder | iCBT               | Wait-list                                      | PSH                   | e-mail feedback            | Non-professional (research staff) | iCBT superior to control |</p>
<table>
<thead>
<tr>
<th>Program</th>
<th>Study</th>
<th>Included in previous review?</th>
<th>Participants</th>
<th>Participant symptoms</th>
<th>Intervention</th>
<th>Control</th>
<th>Level of human input</th>
<th>Amount of human input</th>
<th>Professional vs non-professional input</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Carlbring, Bohman, Brunt, Buhrman, Westling, Ekselius, &amp; Andersson, 2006)</td>
<td>Yes</td>
<td>N = 60</td>
<td>Diagnosis of panic disorder</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and weekly telephone calls (10 mins)</td>
<td>Professional (Therapists)</td>
<td>iCBT superior to control</td>
<td></td>
</tr>
<tr>
<td>The Panic program</td>
<td>(Wims, Titov, Andrews, &amp; Choi, 2010)</td>
<td>Yes</td>
<td>N = 59</td>
<td>Diagnosis of panic disorder</td>
<td>iCBT + online discussion group</td>
<td>Wait-list</td>
<td>MC</td>
<td>Weekly e-mail + moderation of discussion group</td>
<td>Professional (Therapist)</td>
<td>iCBT + online discussion group superior to control</td>
</tr>
<tr>
<td>Interapy - Panic</td>
<td>(Ruwaard, Broeksteeg, Schrieken, Emmelkamp, &amp; Lange, 2010)</td>
<td>No</td>
<td>N = 58</td>
<td>Panic symptoms</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>MC</td>
<td>Feedback and support</td>
<td>Professional (Therapist)</td>
<td>iCBT superior to control</td>
</tr>
<tr>
<td>Program</td>
<td>Study</td>
<td>Included in previous review?</td>
<td>Participants</td>
<td>Participant symptoms</td>
<td>Intervention</td>
<td>Control</td>
<td>Level of human input</td>
<td>Amount of human input</td>
<td>Professional vs non-professional input</td>
<td>Outcome</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>--------------</td>
<td>----------------------</td>
<td>--------------</td>
<td>---------</td>
<td>----------------------</td>
<td>------------------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Online anxiety prevention program</td>
<td>(Kenardy, McCafferty, &amp; Rosa, 2003)</td>
<td>Yes</td>
<td>N = 83</td>
<td>Anxiety sensitivity symptoms</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>SH</td>
<td>N/A</td>
<td>N/A</td>
<td>iCBT superior to control</td>
</tr>
<tr>
<td></td>
<td>(Kenardy, McCafferty, &amp; Rosa, 2006)</td>
<td>No</td>
<td>N = 42</td>
<td>Anxiety sensitivity symptoms</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>SH</td>
<td>N/A</td>
<td>N/A</td>
<td>iCBT superior to control at 6 months</td>
</tr>
</tbody>
</table>

**Social phobia**

<table>
<thead>
<tr>
<th>Program</th>
<th>Study</th>
<th>Included in previous review?</th>
<th>Participants</th>
<th>Participant symptoms</th>
<th>Intervention</th>
<th>Control</th>
<th>Level of human input</th>
<th>Amount of human input</th>
<th>Professional vs non-professional input</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOFIE</td>
<td>(Andersson, Carlbring, Holmström, Sparthan, Furmark, Nilsson-Ihrfelt, Buhrman, &amp; Ekselius, 2006)</td>
<td>Yes</td>
<td>N = 64</td>
<td>Diagnosis of social phobia</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and 2 face-to-face exposure sessions</td>
<td>Professional (Therapist)</td>
<td>iCBT superior to control</td>
</tr>
<tr>
<td></td>
<td>(Carlbring, Gunnarsdottir, Hedensjo, Andersson, Ekselius, &amp;</td>
<td>Yes</td>
<td>N = 60</td>
<td>Diagnosis of social phobia</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and weekly telephone calls (10 mins)</td>
<td>Professional (Therapist)</td>
<td>iCBT superior to control</td>
</tr>
<tr>
<td>Program</td>
<td>Study</td>
<td>Included in previous review?</td>
<td>Participants</td>
<td>Participant symptoms</td>
<td>Intervention</td>
<td>Control</td>
<td>Level of human input</td>
<td>Amount of human input</td>
<td>Professional vs non-professional input</td>
<td>Outcome</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>--------------</td>
<td>----------------------------------------</td>
<td>--------------</td>
<td>---------</td>
<td>----------------------</td>
<td>------------------------</td>
<td>----------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Furmark, 2007)</td>
<td>(Carlbring, Nordgren, Furmark, &amp; Andersson, 2009)</td>
<td>No</td>
<td>N = 57</td>
<td>Diagnosis of social phobia</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and weekly telephone calls (10 mins)</td>
<td>Professional (Therapist)</td>
<td>iCBT superior to control at 30 months</td>
</tr>
<tr>
<td>(Furmark, Carlbring, Hedman, Sonnenstein, Clevberger, Bohman, Eriksson, Hallen, Frykman, Holmstrom, Spartanh, Tillfors, Ihrfelt,</td>
<td>Yes</td>
<td>Trial 1: N = 120</td>
<td>L⁰ = 40</td>
<td>Diagnosis of social phobia</td>
<td>L⁰ = 'pure' iCBT</td>
<td>Wait-list</td>
<td>MC</td>
<td>L⁰ and L⁰ received weekly e-mail feedback</td>
<td>Professional (Therapist)</td>
<td>Trial 1: iCBT and CBT manual equivalent, both superior to control</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>L⁰ = 40</td>
<td></td>
<td>L⁰ = CBT manual</td>
<td></td>
<td></td>
<td></td>
<td>Trial 2: all treatment arms equivalent</td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td>Study</td>
<td>Included in previous review?</td>
<td>Participants</td>
<td>Participant symptoms</td>
<td>Intervention</td>
<td>Control</td>
<td>Level of human input</td>
<td>Amount of human input</td>
<td>Professional vs non-professional input</td>
<td>Outcome</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>------------------------------</td>
<td>--------------</td>
<td>----------------------</td>
<td>--------------</td>
<td>---------</td>
<td>----------------------</td>
<td>----------------------</td>
<td>----------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>N = 105</td>
<td>Diagnosis of social phobia</td>
<td>iCBT + online discussion group</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and support</td>
<td>Professional (Therapist)</td>
<td>iCBT + online discussion group superior to control</td>
</tr>
<tr>
<td>The Shyness program</td>
<td>(Titov, Andrews, Schwencke, Drobny, &amp; Einstein, 2008a)</td>
<td></td>
<td>I = 50</td>
<td>C = 55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Titov, Andrews, &amp; Schwencke, 2008b)</td>
<td>Yes</td>
<td>N = 88</td>
<td>Diagnosis of social phobia</td>
<td>iCBT + online discussion group</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and support</td>
<td>Professional (Therapist)</td>
<td>iCBT + online discussion group superior to control</td>
</tr>
<tr>
<td></td>
<td>(Titov, Andrews, Choi, Schwencke, &amp; Mahoney, 2008c)</td>
<td>Yes</td>
<td>N = 98</td>
<td>Diagnosis of social phobia</td>
<td>I° = clinician assisted iCBT</td>
<td>Wait-list</td>
<td>MC</td>
<td>I° received e-mail feedback and support</td>
<td>Professional (Therapist)</td>
<td>Clinician assisted iCBT superior to pure iCBT and control</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I° = 32</td>
<td>I° = 'pure' iCBT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td>Study</td>
<td>Included in previous review?</td>
<td>Participants</td>
<td>Participant symptoms</td>
<td>Intervention</td>
<td>Control</td>
<td>Level of human input</td>
<td>Amount of human input</td>
<td>Professional vs non-professional input</td>
<td>Outcome</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>--------------</td>
<td>----------------------</td>
<td>--------------</td>
<td>---------</td>
<td>----------------------</td>
<td>-----------------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>(Titov, Andrews, Johnston,</td>
<td>(Titov, Andrews, Johnston, Schwewccke, &amp; Choi, 2009a)</td>
<td>Yes</td>
<td>N = 193</td>
<td>Diagnosis of social</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and support</td>
<td>Professional (Therapist)</td>
<td>iCBT superior to control at 6 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I = 93</td>
<td>phobia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C = 100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talk to me</td>
<td>(Botella, Gallego, Garcia-Palacios, Guillel, Banos, Quero, &amp; Alcaniz,</td>
<td>Yes</td>
<td>N = 127</td>
<td>Diagnosis of social</td>
<td>I^a = iCBT</td>
<td>Wait-list</td>
<td>SH</td>
<td>N/A</td>
<td>N/A</td>
<td>iCBT and therapist-administered CBT equivalent, both superior to control</td>
</tr>
<tr>
<td></td>
<td>2010)</td>
<td></td>
<td>I^a = 62</td>
<td>phobia</td>
<td>I^b = Therapist-administered CBT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I^b = 36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C = 29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(No name)</td>
<td>(Berger, Hohl, &amp; Caspar, 2009)</td>
<td>Yes</td>
<td>N = 52</td>
<td>Diagnosis of social</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and support</td>
<td>Professional (Therapist)</td>
<td>iCBT superior to control</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I = 31</td>
<td>phobia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C = 21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Post-traumatic stress disorder**
<table>
<thead>
<tr>
<th>Program</th>
<th>Study</th>
<th>Included in previous review?</th>
<th>Participants</th>
<th>Participant symptoms</th>
<th>Intervention</th>
<th>Control</th>
<th>Level of human input</th>
<th>Amount of human input</th>
<th>Professional vs non-professional input</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHTC</td>
<td>(Hirai &amp; Clum, 2005)</td>
<td>Yes</td>
<td>N = 27</td>
<td>Subclinical symptoms of PTSD</td>
<td>iCBT</td>
<td>Wait-list</td>
<td>SH</td>
<td>N/A</td>
<td>N/A</td>
<td>iCBT superior to control</td>
</tr>
<tr>
<td>Interapy</td>
<td>(Lange, van de Ven, Schrieken, &amp; Emmelkamp, 2001)</td>
<td>Yes</td>
<td>N = 25</td>
<td>Experience of a traumatic event</td>
<td>i-exposure</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and support</td>
<td>Professional (Therapist)</td>
<td>i-exposure superior to control</td>
</tr>
<tr>
<td></td>
<td>(Lange, Rietdijk, Hudcovicova, van de Ven, Schrieken, &amp; Emmelkamp, 2003)</td>
<td>Yes</td>
<td>N = 101</td>
<td>Severe trauma symptoms</td>
<td>i-exposure</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and support</td>
<td>Professional (Therapist)</td>
<td>i-exposure superior to control</td>
</tr>
<tr>
<td></td>
<td>(Knaevelsrud &amp; Maercker, 2007)</td>
<td>Yes</td>
<td>N = 96</td>
<td>Post-traumatic stress symptoms</td>
<td>i-exposure</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and support</td>
<td>Professional (Therapist)</td>
<td>i-exposure superior to control</td>
</tr>
<tr>
<td></td>
<td>(Knaevelsrud &amp; Maercker, 2010)</td>
<td>No</td>
<td>N = 34</td>
<td>Post-traumatic stress symptoms</td>
<td>i-exposure</td>
<td>Wait-list</td>
<td>MC</td>
<td>e-mail feedback and support</td>
<td>Professional (Therapist)</td>
<td>Effects of i-exposure maintained at 18 months</td>
</tr>
<tr>
<td>Program</td>
<td>Study</td>
<td>Included in previous review?</td>
<td>Participants</td>
<td>Participant symptoms</td>
<td>Intervention</td>
<td>Control</td>
<td>Level of human input</td>
<td>Amount of human input</td>
<td>Professional vs non-professional input</td>
<td>Outcome</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>------------------</td>
<td>----------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>---------</td>
<td>----------------------</td>
<td>-----------------------</td>
<td>----------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Generalised anxiety disorder</td>
<td>(Titov, Andrews, Robinson, Schwencke, Johnston, Solley, &amp; Choi, 2009b)</td>
<td>Yes</td>
<td>N = 48</td>
<td>Diagnosis of GAD</td>
<td>iCBT + online discussion group</td>
<td>Wait-list</td>
<td></td>
<td>e-mail feedback and support</td>
<td>Professional (Therapist)</td>
<td>iCBT + online discussion group superior to control</td>
</tr>
<tr>
<td></td>
<td>(Robinson, Titov, Andrews, McIntyre, Schwencke, &amp; Solley, 2010)</td>
<td>Yes</td>
<td>N = 150</td>
<td>Diagnosis of GAD</td>
<td>( I^a = iCBT + technician assistance ) ( I^b = iCBT + clinician assistance + online forum )</td>
<td>Wait-list</td>
<td></td>
<td>PSH/MC</td>
<td>Professional (Trained layperson) ( P^b ) Professional (Therapist)</td>
<td>iCBT with technician and clinician support equivalent, both superior to control</td>
</tr>
<tr>
<td>Program</td>
<td>Study</td>
<td>Included in previous review?</td>
<td>Participants</td>
<td>Participant symptoms</td>
<td>Intervention</td>
<td>Control</td>
<td>Level of human input</td>
<td>Amount of human input</td>
<td>Professional vs non-professional input</td>
<td>Outcome</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>--------------</td>
<td>----------------------</td>
<td>-------------------------------</td>
<td>---------</td>
<td>----------------------</td>
<td>-------------------------------</td>
<td>--------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Generalised anxiety disorder, panic disorder, social phobia</td>
<td>The Anxiety program (Titov, Andrews, Johnston, Robinson, &amp; Spence, 2010b)</td>
<td>No</td>
<td>N = 86</td>
<td>Diagnosis of GAD, panic disorder or social phobia</td>
<td>iCBT + online discussion group</td>
<td>Wait-list</td>
<td>MC</td>
<td>Weekly e-mail or telephone contact</td>
<td>Professional (Therapist)</td>
<td>iCBT superior to control</td>
</tr>
</tbody>
</table>

SH = self-help without human contact, PSH = predominantly self-help with brief human contact, MC = self-help with minimal therapist contact, CBT = Cognitive behaviour therapy, TAU = Treatment as usual/usual care, PST = Problem solving therapy, N = total participants, I = participants in intervention condition, C = participants in control condition.
It is clear from the evidence that Internet-based self-help treatments involving some form of monitoring or therapist support are effective. This is particularly true for depression. As shown in the table above, the only interventions which failed to show treatment effects relative to control conditions were those without any guidance (Billings et al., 2008; Clarke et al., 2002; de Graaf et al., 2009a; Patten, 2003). However, other Internet-based depression interventions, with guidance, were found to be effective (Andersson et al., 2005; Christensen et al., 2004a; Clarke et al., 2005; de Graaf et al., 2009a; Meyer et al., 2009; Perini et al., 2009; Ruwaard et al., 2009; Spek et al., 2007a; Titov et al., 2010a; Warmerdam et al., 2008).

For anxiety disorders, both guided and unguided Internet-based interventions were found to be effective. Positive results were found for pure self-help in the treatment of PTSD (Hirai & Clum, 2005), social phobia (Botella et al., 2010), and panic disorder (Kenardy et al., 2003, 2006; Klein & Richards, 2001). Internet-based CBT was also shown to be equivalent to manual-based CBT (Furmark et al., 2009; Klein et al., 2006), and therapist-delivered face-to-face CBT (Botella et al., 2010).

Like therapist supported treatments, self-help treatments involving assistance from a non-professional were shown to be more effective than control conditions for depression and panic disorder (Carlbring et al., 2001; Christensen et al., 2004a; Clarke et al., 2005; Mackinnon et al., 2008; van Stratren et al., 2008; Warmerdam et al., 2008). Recent evidence from Titov and colleagues suggests that treatments supported by professionals and non-professionals are equally effective in the treatment of depression and GAD (Robinson et al., 2010; Titov et al., 2010a). Thus, the use of non-professionals to provide monitoring and minimal support appears promising, given the potential to free therapist time without sacrificing treatment efficacy.

Trials of Internet-based interventions for anxiety and mood disorders have compared (a) pure self-help treatments (no guidance) with control conditions, (b)
predominantly self-help treatments (professional and non-professional monitoring) with control conditions, (c) minimal therapist contact self-help treatments (professional feedback and support) with control conditions, (d) professional and non-professional minimal contact self-help treatments and (e) self-help treatments with face-to-face treatments. However, no published trials to date have compared the relative efficacy of an Internet-based self-help treatment monitored by non-professionals and a pure self-help treatment without monitoring; with each other and a control condition. A trial such as this would provide further evidence for or against the use of non-professionals in the provision of guidance, as well as the relative efficacy of non-professional monitoring compared with no monitoring at all.

1.2.4 Advantages and disadvantages of Internet-based interventions

Internet-based treatments share many of the same advantages as other forms of self-help. Internet-based approaches have the potential to lower the cost of treatment. For example, Gerhards and colleagues evaluated the cost-effectiveness of an unguided, online CBT program for depression and found that it was associated with the lowest mean societal costs and the highest probability of being the most efficient treatment strategy compared with treatment as usual and online CBT plus treatment as usual (Gerhards, de Graaf, Jacobs, Severens, Huibers, Arntz, Riper, Widdershoven, Metsemakers, & Evers, 2010). Titov and colleagues demonstrated that the cost of averting one year lived with a disability (YLD) with Internet-based CBT for social phobia was one quarter of the cost associated with the same health gain produced by face-to-face treatment (Titov et al., 2009a). Although the evidence for the cost-effectiveness of Internet-based CBT is promising, further studies are needed to examine the implications of human support and guidance on the cost-effectiveness of
these interventions (Palmqvist, Carlbring, & Andersson, 2007). As Gerhards has pointed out, the cost of online treatment increases, and may even exceed treatment as usual, when it requires intensive human involvement and infrastructure.

Unlike static self-help books, Internet-based interventions have the potential to be more engaging to users through the use of colourful graphics and animations. An Internet platform enables therapeutic material to be delivered dynamically. Internet-based treatments are interactive, and capable of providing users with instant, tailored feedback based on the information they record in the program. Moreover, Internet-based programs may be more likely to remain current, given that they can be easily updated and continually developed (although this may compromise the fidelity of an evaluated program).

Arguably, the greatest advantage of Internet-based treatments is their potential for broad dissemination. Individuals who are isolated, located in rural or remote areas, or who are unable to leave home due to physical or mental illness severity can access Internet-based services for little or no cost, at their convenience. In this way, Internet interventions have the potential to significantly increase numbers in the community who have access to some form of evidence-based care. Even minimal improvement in symptoms could significantly reduce the burden of depression if a treatment is safe, inexpensive and capable of being delivered to large numbers of people (Andersson & Cuijpers, 2008).

Attrition has been highlighted as one of the major drawbacks of Internet-based interventions (Eysenbach, 2005). Adherence to any treatment is an important issue because of (a) the relationship between treatment adherence and outcome and (b) the difficulty in research trials of interpreting treatment effects (Andersson & Cuijpers, 2008). The study of adherence in research trials has the potential to identify the stable and modifiable factors that predict use of an intervention.
Substantial research attention has been directed to investigating the factors associated with adherence and proposing explanatory models to describe adherence behaviour. A large number of predictors have been investigated, and these have been categorised according to (1) user variables (demographics, beliefs/expectancies about health/treatment), (2) disease or disorder variables (chronicity, severity, complicating factors), (3) treatment variables (complexity, duration, side effects), and (4) relationship variables (to the healthcare provider/trial staff) (Meichenbaum & Turk, 1987). On the whole, however, studies have failed to identify robust predictors of treatment adherence. Moreover, relatively few studies have investigated adherence to treatment for depression, and those that exist have focussed on adherence to antidepressant medication and face-to-face psychotherapy (Bollini, Pampallona, Kupelnick, Tibaldi, & Munizza, 2006; Pampallona, Bollini, Tibaldi, Kupelnick, & Munizza, 2002).

Internet-based interventions offer an ideal context in which to study adherence, as the number of log ins or modules completed can be automatically and conveniently recorded using purpose written software. However, adherence to Internet-based interventions is under-researched. Only a few studies have examined adherence in Internet interventions for depression and anxiety. Batterham and colleagues investigated predictors of adherence to an open-access online CBT program for depression and found that the following factors were associated with increased adherence: higher depression severity, higher anxiety severity, a greater level of dysfunctional thinking, younger age, higher education, being female, and being referred to the site by a mental health professional (Batterham, Neil, Bennett, Griffiths, & Christensen, 2008). In an adolescent sample, Neil and colleagues found that female gender, school-based setting, and rural location were associated with increased adherence to online CBT (Neil, Batterham, Christensen, Bennett, & Griffiths, 2009).
Disease severity, treatment length and illness chronicity were identified as predictors of adherence in RCTs reviewed by Christensen and colleagues; however, in contrast to the findings of Batterham and colleagues, lower baseline depression rates were found to be associated with greater adherence (Christensen, Griffiths, & Farrer, 2009).

Adherence studies have been criticised on the grounds that the chosen predictors under investigation lack a clear theoretical rationale. In response, some researchers have shifted focus to theoretically grounded psychological and treatment process variables related to adherence, such as self-efficacy, motivation and outcome expectancies (Brawley & Culos-Reed, 2000). According to these approaches, adherence to online CBT may be influenced by the participant's self-efficacy for learning and implementing therapeutic techniques, their motivation for change, and their expectations about the usefulness or efficacy of the treatment program. Initial findings from behavioural medicine programs have been promising (Davis & Addis, 1999). However, the role of these constructs in adherence to online CBT has yet to be investigated.

In summary, Internet-based treatments are a dynamic, low-cost, accessible and effective alternative to traditional face-to-face treatments for mood and anxiety disorders. They have been used effectively in community, clinical, general practice and other settings, demonstrating their versatility and potential for wide reach. These factors suggest that Internet-based treatments may be a powerful tool for addressing unmet need. However, the Internet is not the only technological tool that has been used to increase the reach and accessibility of mental health care. The telephone has also been employed to deliver mental health treatment, either by trained mental health professionals or lay members of the community. These modes of delivery are discussed below in Section 1.3.
1.3 Telephone-based interventions

1.3.1 Introduction

The telephone has been used as an adjunct to mental health care or an alternative to face-to-face treatments. Telephone-based psychotherapies have some empirical support, and have many of the same advantages as Internet-based treatments with regard to increased access. However, they still require the same level of therapist involvement as traditional face-to-face psychotherapies. Community-based telephone counselling services are popular and widely used by those in the community who experience severe levels of depression and anxiety. The addition of Internet-based interventions to these services may have the capacity to increase the access of telephone counselling users to evidence-based treatment.

1.3.2 Telephone-based psychotherapy

The telephone has enabled mental health clinicians to conduct psychotherapy with clients remotely, eliminating the need, in some cases, for clients to attend face-to-face sessions. As many as two-thirds of psychologists administer individual psychotherapy using the telephone as part of their clinical practice (VandenBos & Williams, 2000). A number of systematic reviews have demonstrated that telephone-delivered psychotherapy is effective for a range of mental disorders. Leach and colleagues found positive results in five of six studies of telephone-administered treatments for depression, and three studies of interventions for anxiety disorders (Leach & Christensen, 2006). However, many of the studies included in this review lacked adequate sample sizes and randomised controlled trial methodology. In a more recent meta-analysis by Mohr and colleagues, telephone-administered psychotherapy
for depression was found to be effective relative to wait-list and treatment as usual control conditions \((d = 0.26)\) (Mohr, Vella, Hart, Heckman, & Simon, 2008). Also, average rates of attrition were lower for telephone-based psychotherapy \((7.6\%)\) compared with those found for face-to-face treatments.

As with Internet-based treatments, telephone-administered psychotherapy addresses many of the barriers that prevent individuals from initiating face-to-face therapy or attending regularly scheduled psychotherapy sessions. Some of these include time restraints, location and transportation issues, stigma, and disability or illness severity. Although telephone-administered therapies are effective and have the potential to broaden the reach of treatment, they still, like face-to-face psychotherapy, require the therapist to interact with the client on a one-to-one basis over the course of the treatment. This is the primary point of difference between this treatment approach and that of Internet-based treatments, in which automated therapeutic material is predominantly self-administered by clients.

1.3.3 Non-directive telephone counselling

Like Internet and telephone-based psychotherapies, telephone counselling services aim to reach large numbers in the community in need of psychological support. The overarching aim of telephone counselling services is to provide immediately accessible, non-directive counselling support to any person suffering from loneliness, psychological distress or crisis, or who is contemplating suicide. They enable callers to benefit from a genuine human relationship based on non-judgemental listening, offered by experienced, trained volunteers. Many helplines are available 24-hour hours a day, are confidential and free of charge. They are
commonly provided by not-for-profit charity or religious organisations, some of whom receive government funding.

Telephone counselling services are popular and widely utilised throughout the world. In 2009, major helplines in the United Kingdom received over 4 million calls (The Samaritans, 2010). Across other parts of Europe, telephone counselling organisations received in excess of 4 million calls and 15,000 e-mails in 2002 (International Federation of Telephone Emergency Services, 2010). In 2009-2010, Lifeline Australia received approximately 450,000 calls (Lifeline Australia, 2010b). Studies of users of telephone counselling helplines consistently demonstrate high levels of satisfaction with the service received (Boystown, 2008; Perkins & Fanaian, 2004; Urbis Keys Young, 2003). This is consistent with the fact that many users of these services are ‘repeat’ callers. Approximately 40% of callers to helplines report having used the service 20 times or more (Urbis Keys Young, 2003).

A significant level of cross-referral occurs between telephone helplines and mainstream mental health services. As many as 20% of callers to helplines are referred by health professionals, who rely on helplines to support their clients after normal operating hours (Urbis Keys Young, 2003). Telephone helplines also act as a referral gateway for many callers, linking them to mental health crisis and assessment teams, community and hospital mental health teams or agencies that provide care relevant to their specific concerns. However, mainstream mental health services are often difficult to access due to cost, structured consultation times, waiting list length, and location.

Telecounselling helplines, therefore, play an important role in servicing large numbers of people who would otherwise not be willing or able to access mainstream mental health services. Helplines share a number of the advantages associated with some Internet-based interventions. They are anonymous and confidential, which may
appeal to those who feel uncomfortable accessing face-to-face services. They also offer a quick and immediate response, unlike many mainstream services that require long waiting periods. They are easily accessible and available at the convenience of the caller. Helplines also offer the potential for wide reach within the community, especially to those who are physically and socially isolated.

1.3.4 Telephone counselling in Australia

Lifeline is the predominant provider of telephone counselling services in Australia. A network of 60 Lifeline centres, maintained by trained volunteers and paid staff, operate in both rural and metropolitan locations across Australia, and receive approximately 450,000 calls per year. Lifeline’s services are made possible through the work of around 1,000 staff and 11,000 volunteers, including those involved in telephone counselling, fundraising and administration (Lifeline Australia, 2010a).

Despite the uptake of telecounselling in Australia, there is a relative scarcity of information and research available on the characteristics of those who call helplines and the effectiveness of the help they receive. A number of short reports and fact sheets have been published on the Lifeline Australia website that contain basic demographic data and information about the types of issues faced by callers. However, the data in these reports is based on information collected indirectly by telephone counsellors during a counselling call and the data recorded is based on the counsellor’s understanding and interpretation of the caller and the issues that were discussed. This method of data collection, while unobtrusive, is subject to bias, since it relies on the counsellor’s judgement. Moreover, counsellors may only be able to
obtain minimal information about the caller, and hence, records of call data are often incomplete.

Prior to the current study, only one published report was found to contain data obtained directly from Lifeline callers through the use of reliable self-report measures (Perkins & Fanaian, 2004). This study, undertaken in 2003, administered a telephone interview to a sample of 154 Lifeline callers located on the South Coast of Australia during a 3-week period. The interview collected demographic information, caller’s reasons for contacting Lifeline, levels of psychological distress, levels of symptoms associated with mood, anxiety and psychotic disorders, level of disability, health services currently accessed by callers, and satisfaction with the Lifeline service. In this sample, respondents were predominantly female (71.4%) and aged between 18 and 64 years of age. The most commonly reported reason for calling Lifeline was family and relationship issues (29%), followed by chronic physical or mental health problems (21%), and isolation and loneliness (18%). 18% of respondents identified issues relating to crisis or suicide as their primary reason for contacting Lifeline. In terms of psychological distress, 72% of respondents obtained a score of 22 or above on the K10 (Kessler et al., 2002), indicating average levels of symptoms in the high to very high range. 51% of respondents scored in the very high range (with a score over 30), which indicates they were likely to be experiencing a severe mental disorder. Survey respondents reported high levels of symptoms associated with mood and anxiety disorders. 78% of respondents reported that they experienced symptoms associated with depression over the previous 4 weeks, and respondents were 2 to 6 times more likely than the general population to experience symptoms associated with an anxiety disorder (Perkins & Fanaian, 2004). Respondents reported an average of 9 days per month where they felt unable to carry out their usual activities due to poor mental health. Two-thirds of respondents (65%) reported that they were not currently
receiving any mental health services apart from Lifeline. Cost (35%) and lack of knowledge regarding available services (27%) were commonly reported barriers to receiving mental health care. High rates of satisfaction with the Lifeline service were reported, with 98% of respondents indicating that they would call Lifeline again in the future or recommend Lifeline to others.

1.4 Summary of the literature to date

Evidence suggests that Internet-based interventions may be effective in the delivery of CBT and other psychotherapies. However, there is still debate as to the settings in which these interventions are effective and under what circumstances. Emerging evidence suggests that the delivery of web-based interventions does not rely critically on the assistance of a mental health professional, and that a trained lay person may be equally effective in this role. There is less agreement as to whether fully automated self-help interventions and those with minimal contact are as effective as therapist-delivered interventions. Telephone-based interventions may also be useful because they minimise therapist time, although not to same extent as Internet-delivered treatments. Telephone counselling services, in particular, are accessed by individuals in the community with high levels of depression and anxiety, many of whom do not receive any form of evidence-based care, and who may have a preference for non face-to-face treatments.

The randomised controlled trial which forms the basis of this thesis aims to examine the effectiveness of an automated self-help Internet-based intervention for depression in a telephone counselling population. The trial investigates a currently unexamined model of treatment delivery for depression that uses the strengths of the telephone counselling workforce and Internet-based CBT. In an attempt to determine the most effective delivery mode it compares the intervention with and without
ongoing telephone monitoring from a telephone counsellor. It also evaluates the
effectiveness of ongoing telephone monitoring alone. All conditions are compared to a
wait-list control condition. The aims, methods and results of this trial are described in
Chapters 3 and 4 of this thesis. Prior to the commencement of the randomised
controlled trial, a survey of telephone counselling users was conducted. The results of
this survey are discussed in Chapter 2.
CHAPTER 2 – THE MENTAL HEALTH PROFILE OF LIFELINE CALLERS

2.1 A scoping survey of Lifeline callers

2.1.1 Introduction

It was important for the development of the randomised controlled trial to further strengthen the evidence surrounding the mental health profile of Lifeline callers, in order to establish the need for a targeted depression intervention within the service. As discussed in Chapter 1, there is a relative scarcity of information and research available on the characteristics of those who call helplines, particularly when the telephone counselling service provided by Lifeline is anonymous. An additional priority for this study was to ascertain the willingness of Lifeline callers to receive an Internet-based intervention for depression symptoms, and to participate in a research trial evaluating its effectiveness, given that participation would require them to relinquish their anonymity.

2.1.2 Background

Prior to the start of the randomised controlled trial, a brief telephone scoping survey was conducted with a sample of Lifeline callers to inform the development of the trial and to obtain quantitative data about the mental health profile of the target population (Burgess, Christensen, Leach, Farrer, & Griffiths, 2008). The purpose of the scoping survey was to collect data directly from Lifeline callers about the need for and feasibility of a research trial of an online intervention for depression and anxiety. A short, anonymous questionnaire was developed to assess callers’ previous
experiences with Lifeline and their expectations of the service. The survey also assessed their willingness to participate in a research trial, and aspects of their mental health.

2.1.3 Method

Procedure

A large urban-located Lifeline telephone counselling centre participated in data collection over a four-week period between August and September, 2006. This centre was staffed by approximately 230 volunteer telephone counsellors, who on average worked 1 shift per fortnight, on a shift roster that operated 24 hours a day.

Prior to the start of the active data collection phase, extensive training of telephone counsellors and on-shift supervisors was conducted. A supervisor training day was held with the purpose of providing supervisors with background information about the aims of the scoping survey and the larger research trial. Supervisors were taken step-by-step through the process of conducting the survey with callers, and were given the opportunity to practice using the online survey tool. Supervisors were also provided with a manual containing an outline of the survey and tips for supporting telephone counsellors in their use of the survey with callers (see Appendix 1 for a copy of the supervisor manual). A presentation of this information was also built into the training program for new telephone counsellors.

Training for telephone counsellors to administer the survey was conducted entirely on shift and was staged in 2-week blocks in the lead up to the survey to allow counsellors enough time to become familiar with the survey script. Different stages of training took place in 2-week blocks, as counsellors attended one counselling shift per fortnight. Six weeks prior to the start of data collection, for a period of 2 weeks, a
survey ‘awareness’ campaign commenced informing telephone counsellors that survey data collection would soon begin. This involved placing notices around the telephone counselling room and including information about the survey in a telephone counsellor newsletter. For a period of 4 weeks prior to the start of data collection, telephone counsellors were provided with a training manual similar to that provided to supervisors. Counsellors were asked to practice using the online survey tool while on shift (see Appendix 2 for the manual provided to telephone counsellors).

During the data collection period, telephone counsellors asked callers if they would be willing to answer a brief survey at the conclusion of a counselling call. Callers in immediate distress or experiencing issues related to suicide were excluded from this invitation, as were callers seeking specific referral information to a health care provider. Telephone counsellors invited callers to participate using the following script: ‘Over the next couple of months Lifeline would like to ask some additional questions to find out the reasons people call and what callers want from the Lifeline service. It should only take about 10 minutes. With your permission, we would like to add your answers to these questions along with the answers you have just provided to a computer at the Australian National University. Nothing that can link you or me with your information will be recorded. Also, you don’t have to answer these questions, it’s voluntary. And if you begin the questions, you can stop at any time’. If callers agreed to participate, telephone counsellors opened and logged into the online survey tool to administer the remaining survey questions. At the conclusion of the survey, callers were thanked for their participation.

Measures

The following measures were administered to callers via the telephone, by Lifeline telephone counsellors, at the conclusion of a counselling call. For a full
listing of the administered items, see Appendix 3. Telephone counsellors accessed the survey and recorded caller responses using the online survey tool APOLLO. Callers remained anonymous and no identifying information was collected.

Demographics: The following demographic information was collected: age, gender, relationship status (never married, de facto/married, separated, divorced, widowed), post-code, and if the caller spoke a language other than English at home.

Experience with Lifeline: Twelve items were developed by the researchers to assess respondents’ history of calling Lifeline and the major problem areas currently causing them distress. Respondents were asked to indicate the number of times they had used Lifeline’s service in the past month. They were also asked to indicate the extent to which various problems caused them difficulty in their life, on a 3 point scale (not at all, somewhat, quite a bit). Problem items included: money problems, housing problems, taking drugs, alcohol, family problems, loneliness, physical illness, feeling anxious and feeling depressed.

Willingness to participate in a research trial: Willingness was assessed by a series of ‘yes’ and ‘no’ questions developed by the researchers. Respondents were provided with some brief information describing the research trial, and were asked if they would be willing to participate. Respondents were also asked if they would be willing to provide their name, address, e-mail address and telephone number in order to participate, as well as their willingness to be contacted regularly by a Lifeline telephone counsellor.

Depression and anxiety symptoms: Depression and anxiety symptoms were measured using the Goldberg Depression Scale and the Goldberg Anxiety Scale (Goldberg, Bridges, Duncan-Jones, & Grayson, 1988). These screening instruments each contain nine statements to which respondents answer either ‘yes’ or ‘no’. A total score for each scale is obtained by summing the individual item scores. This yields a
scale score ranging from 0 to 9, where a higher score indicates greater depression or anxiety.

**Panic Attacks:** Two items from the Primary Care Evaluation for Mental disorders (Prime-MD) Client Health Questionnaire were used to screen for the presence of panic attacks (Spitzer, Kroenke, Williams, & the Patient Health Questionnaire Primary Care Study Group, 1999). Respondents were asked to indicate ‘yes’ or ‘no’ to the following items: ‘In the last 4 weeks, have you had an anxiety attack – suddenly feeling fear or panic?’; and ‘Do these attacks bother you a lot or are you worried about having another attack?’.

**Social Phobia:** A single item to assess social phobia was developed by the researchers based on items from the Fear Questionnaire (FQ) (Marks & Mathews, 1979). Respondents were asked to indicate ‘yes’ or ‘no’ in response to the following item: ‘Do you have any of the following fears so that you avoid them: eating or drinking with other people, being watched or stared at, talking to people in authority, being criticised, or speaking to an audience?’.

**Specific Phobia:** A single specific phobia item was developed by the researchers based on commonly endorsed subtypes of specific phobia. Respondents were asked to indicate ‘yes’ or ‘no’ in response to the following item: ‘Are you frightened by spiders, snakes or other animals so much that it interferes with your coping capacity?’.

**Alcohol Use:** Two items from the Alcohol Use Disorder Identification Test (AUDIT) were used to screen for harmful alcohol use (Babor, de la Fuente, Saunders, & Grant, 1992). Possible responses to the item, ‘How often do you have a drink containing alcohol?’ included: ‘never’, ‘monthly or less’, ‘2 to 4 times a month’, ‘2 or 3 times a week’, or ‘four times a week’. Possible responses to the second item, ‘How
many drinks containing alcohol do you have on a typical day when you are drinking?’ included: ‘1 or 2’, ‘3 or 4’, ‘5 or 6’, ‘7 to 9’ and ‘10 or more’.

Current professional help: Current professional help was assessed using two items developed by the researchers. The first item asked respondents to indicate if they are currently taking any prescription antidepressant medication. The second item asked respondents to indicate if they have seen any of the following mental health professionals in the past month: a counsellor, a case-worker, a psychologist, a psychiatrist or another kind mental health professional. Response categories for both items were ‘yes’ or ‘no’.

Internet access and use: Two items were developed by the researchers to assess respondents’ Internet access and use. Respondents were asked to indicate ‘yes’ or ‘no’ if they have access to the Internet at least once a week and if they know how to use the Internet to find information.

2.1.4 Results

Over the four-week data collection period, the centre received a total of 1404 calls. Of these, 439 (31.3%) calls met inclusion criteria. Of the eligible callers, 270 (61.5%) agreed to participate and 71 declined participation. The remaining 98 callers had either already completed or declined the survey in a previous call.

76% of respondents were female and respondents ranged in age from 20 to 82 years ($M = 44.5$). There was no significant difference in age between females and males ($F(1, 240) = .084$, $p>.05$). In terms of relationship status, 24% of respondents were in a married or de facto relationship, 36% reported never having been married, 13% were separated, 24% of respondents were divorced, and 3% of respondents were widowed. 13.4% of respondents indicated that they spoke a language other than
English at home. All respondents had called Lifeline at least once in the past month. In terms of frequency of Lifeline use, 40% of respondents reported having called Lifeline once in the past month, 17% had called twice, 29% had called between three and ten times, 3% had called between 11 and 19 times and 11% called 20 times or more. Respondents who called between 1 and 2 times were significantly younger than respondents who had called 20 or more times ($F(4, 246) = 4.76$, $p<.001$).

Table 2.1 contains the distribution of current problems causing difficulties for respondents. High proportions of participants indicated that relationship difficulties, family difficulties, loneliness, and feeling anxious or depressed were significant causes of distress.

**Table 2.1 Overall distributions of current problems causing difficulties for respondents**

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Somewhat</th>
<th>Quite a bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money</td>
<td>39.3%</td>
<td>31.3%</td>
<td>29.4%</td>
</tr>
<tr>
<td>Housing</td>
<td>81%</td>
<td>12.5%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Relationships</td>
<td>22.4%</td>
<td>25.1%</td>
<td>52.5%</td>
</tr>
<tr>
<td>Drugs</td>
<td>86.5%</td>
<td>7.1%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>78.9%</td>
<td>13.9%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Family</td>
<td>28%</td>
<td>31.1%</td>
<td>40.9%</td>
</tr>
<tr>
<td>Loneliness</td>
<td>20.3%</td>
<td>27.1%</td>
<td>52.6%</td>
</tr>
<tr>
<td>Physical illness</td>
<td>47.9%</td>
<td>21.9%</td>
<td>30.2%</td>
</tr>
<tr>
<td>Feeling anxious</td>
<td>17.3%</td>
<td>33.5%</td>
<td>49.2%</td>
</tr>
<tr>
<td>Feeling depressed</td>
<td>14.9%</td>
<td>37.5%</td>
<td>47.5%</td>
</tr>
</tbody>
</table>
In terms of trial participation, 197 (73.0%) of respondents indicated a willingness to participate in the current trial if it was offered to them. Of those willing to participate, 80.4% reported that they would be willing to provide their full name, 86.9% were willing to provide their telephone number, 79.4% were willing to provide their postal address and 44.4% were willing to provide their email address. 86.8% of respondents indicated that they were willing to receive a telephone call from Lifeline at a pre-arranged time for a period of six weeks. 55.9% of respondents indicated that they had access to the Internet at least once a week and 64.8% reported that they knew how to use the Internet to find information.

In terms of mental health symptoms, the average Goldberg Depression Scale score of respondents was 5.66 (SD = 2.4). 69.3% of respondents had at least moderate levels of depression (5 or more symptoms). Similarly, 70.8% of the respondents who agreed to participate in the trial had at least moderate levels of depression. The average score on Goldberg Anxiety Scale was 6.30 (SD = 2.2). 77.4% of respondents had at least moderate levels of anxiety (5 or more symptoms). Similarly, 79.6% of the respondents who agreed to participate in the trial had at least moderate levels of anxiety. 50.2% of respondents indicated they had experienced an anxiety or panic attack in the past 4 weeks and of those who had experienced an attack, 70% said these attacks bothered them a lot. 56.6% indicated that they experienced social phobia, and 26.6% indicated that they experienced a specific phobia.

30.4% of respondents indicated that they had received care from a counsellor (other than a Lifeline counsellor) in the past month, 12.7% had received care from a case-worker, 10.7% had received care from a psychologist, 28.4% had received care from a psychiatrist, and 8.9% indicated that they had received mental health care from a general practitioner. 32.7% of respondents reported that they were currently taking antidepressant medication.
In terms of alcohol use, 40% of respondents reported that they never drank alcohol, 25% reported that they drank alcohol monthly or less, 13% indicated that they drank between 2 and 4 times a month, 12% indicated that they drank 2 to 3 times a week, 8% indicated that they drank 4 times per week. Of those who reported that they drank alcohol, 50% reported that they consumed 1 to 2 standard drinks on a typical day when drinking, 21% reported that they consumed 3 to 4 drinks, and 11% reported that they consumed 5 or more drinks.

2.1.5 Conclusions

The demographic and mental health profile of Lifeline callers obtained in the scoping survey was similar to that of the previously conducted interview in 2003 (Perkins & Fanaian, 2004). Respondents from both samples were comparable in terms of demographic characteristics and the major issues that promoted their use of the Lifeline service.

Data from the scoping survey also suggested a significant level of depression and anxiety symptomatology in this population, as reflected by Goldberg symptom scores, as well as the considerable proportion of respondents who identified depression and anxiety among the issues that caused them the greatest distress. Approximately half the sample reported that they experienced symptoms associated with panic and social phobia. Use of traditional mental health services was also limited in this sample, with one third of respondents or less indicating that they receive standard mental health care. Just below half of respondents reported that they never drank alcohol.

Importantly, respondents were generally receptive to the idea of participating in a research trial of a new intervention, with approximately three quarters of
participants indicating their willingness to be involved. Surprisingly, respondents did
not express concern with forgoing their anonymity to be involved in the trial, with
between 80% and 87% of participants indicating willingness to provide their name,
address and telephone number to Lifeline. This result was unexpected given that
caller anonymity is a core and, assumedly, highly valued feature of Lifeline’s service.
It is possible that the willingness of callers to forgo their anonymity reflects not only a
trust in Lifeline as a service but also a need for additional and targeted mental health
assistance.

Overall, data from the scoping study provided evidence of the need for an
intervention for depression and anxiety in users of telephone counselling, and that
such an intervention would be taken up by callers, despite a lack of anonymity. This
led to the development and implementation of the ECCO trial, a randomised
controlled trial of an Internet-based intervention for depression and anxiety in a
sample of users of Lifeline’s telephone counselling service.
CHAPTER 3 – THE ECCO TRIAL: AIMS AND METHODS

3.1 Overview

Chapter 3 outlines the aims and methodology of the ECCO project: a randomised controlled trial evaluating the effectiveness of an online intervention for depression with users of Lifeline’s telephone counselling service. Section 3.2 lists the aims and hypotheses of the trial. Section 3.3 describes the demographic characteristics of the study sample. The trial procedure is detailed in Section 3.4, including information relating to study design, ethics approval, project staff and volunteer training, recruitment, consent, randomisation and assessment procedures. In Section 3.5, all outcome measures are described, including the psychometric properties of each measure. Section 3.6 describes the Internet intervention completed by participants, and outlines each of the trial conditions. Planned statistical analyses are presented in Section 3.7, including pre-analysis data screening procedures and analyses of intervention effects.

3.2 Study aims and hypotheses

3.2.1 Aims

The aims of the randomised controlled trial are:

a. To test the effectiveness of Internet-based CBT in reducing depression and anxiety, in a sample of users of telephone counselling services, relative to a wait-list control condition.

b. To examine the effect of additional weekly telephone tracking delivered by non-professionals on the effectiveness of the intervention, relative to a wait-list control condition.
c. To examine the effect of weekly telephone tracking on adherence to the intervention.

d. To examine the effectiveness of weekly telephone tracking on primary outcome measures, relative to a wait-list control condition.

e. To examine the effect of Internet-based CBT and telephone tracking on secondary outcomes, including dysfunctional thinking, quality of life, hazardous alcohol use, suicidal ideation, disablement, knowledge of helping professionals, knowledge of medical treatments, knowledge of psychological treatments, knowledge of alternative treatments, help seeking, stigma, depression literacy, cognitive behaviour therapy literacy and user satisfaction.

3.2.2 Hypotheses

a. The delivery of an Internet-based CBT program will be more effective in reducing symptoms of depression and anxiety than a wait-list control condition (i.e. the Internet intervention will be effective independent of whether it involves telephone tracking or not).

b. Telephone tracking alone will be less effective than the conditions involving the Internet intervention, but more effective than the wait-list control condition.

c. Telephone tracking in conjunction with the Internet intervention will be more effective than the Internet intervention alone.

d. Adherence to the Internet intervention will be higher in participants who receive telephone tracking than participants who complete the Internet intervention alone.

e. Any reductions in symptoms in participants who receive the Internet intervention will be maintained at 6 and 12 month follow-up.
f. Internet-based CBT (with and without telephone tracking) will be more effective in reducing levels of dysfunctional thinking, hazardous alcohol use, suicidal ideation, disablement and stigma than a wait-list control condition at post-intervention, 6 month follow-up and 12 month follow-up.

g. Internet-based CBT (with and without telephone tracking) will be more effective in improving quality of life, knowledge of helping professionals, knowledge of medical treatments, knowledge of psychological treatments, knowledge of alternative treatments, help seeking, depression literacy and cognitive behaviour therapy literacy than a wait-list control condition at post-intervention, 6 month follow-up and 12 month follow-up.

3.3 Participants

3.3.1 Demographic characteristics

Participants were callers to Lifeline Australia’s telephone counselling service, recruited from five centres across three states in Australia. Three centres were located in Queensland (Brisbane, Sunshine Coast, and Capricorn Coast), one was located in Victoria (Melbourne) and one was located in New South Wales (Sydney).

A total of 155 adults were recruited into the trial. Table 3.1 shows the demographic characteristics of the sample. The sample was predominantly female and middle aged. The majority of participants were recruited from the Brisbane Lifeline call centre, followed by the call centres located in Melbourne, the Sunshine Coast and Sydney. No participants were recruited from the Capricorn Coast call centre. In terms of relationship status, the highest proportion of the sample reported that they had never been married. Most participants reported they had completed six years of secondary schooling as their highest level of primary or secondary education,
and most had completed some form of further education. The most commonly reported post-secondary qualification was a certificate or bachelor’s degree. One quarter of the sample indicated that they were currently studying for a qualification, and the highest proportion of these respondents were studying for a bachelor’s degree. Of those currently studying, a higher proportion was enrolled part-time. The overall sample achieved an average of 13 years of total education.

The most commonly reported employment status was ‘not currently in the labour force’. The most commonly indicated reasons for this were recovering from illness or injury and home duties or caring for children. For the remainder of the sample, roughly equal proportions of respondents (approximately one fifth) indicated that they were employed either full-time or part-time. The most commonly reported current and past occupations of respondents were ‘professional’ and ‘clerical and service worker’.
Table 3.1 Demographic characteristics of the sample

<table>
<thead>
<tr>
<th>Demographic characteristic</th>
<th>( n ) (%) (unless specified)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>41.49 (12.35)</td>
</tr>
<tr>
<td>Range</td>
<td>19 – 72</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
</tr>
<tr>
<td>Male (%)</td>
<td>28 (18.1)</td>
</tr>
<tr>
<td>Female (%)</td>
<td>127 (81.9)</td>
</tr>
<tr>
<td><strong>Recruitment location</strong></td>
<td></td>
</tr>
<tr>
<td>Brisbane</td>
<td>112 (72.3)</td>
</tr>
<tr>
<td>Melbourne</td>
<td>19 (12.3)</td>
</tr>
<tr>
<td>Sunshine Coast</td>
<td>14 (9.0)</td>
</tr>
<tr>
<td>Sydney</td>
<td>10 (6.5)</td>
</tr>
<tr>
<td><strong>Relationship status</strong></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>48 (31.0)</td>
</tr>
<tr>
<td>Divorced</td>
<td>39 (25.2)</td>
</tr>
<tr>
<td>Married</td>
<td>34 (21.9)</td>
</tr>
<tr>
<td>Separated</td>
<td>22 (14.2)</td>
</tr>
<tr>
<td>De facto</td>
<td>9 (5.8)</td>
</tr>
<tr>
<td>Widowed</td>
<td>3 (1.9)</td>
</tr>
<tr>
<td><strong>Total years of education</strong></td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>13.45 (2.68)</td>
</tr>
<tr>
<td>Range</td>
<td>7 – 18</td>
</tr>
<tr>
<td><strong>Highest level of primary or secondary education</strong></td>
<td></td>
</tr>
<tr>
<td>All of primary</td>
<td>2 (1.3)</td>
</tr>
<tr>
<td>Some secondary</td>
<td>26 (17.1)</td>
</tr>
<tr>
<td>Four years of secondary (Year 10)</td>
<td>35 (23.0)</td>
</tr>
<tr>
<td>Six years of secondary (Year 12)</td>
<td>89 (58.6)</td>
</tr>
<tr>
<td><strong>Other education</strong></td>
<td></td>
</tr>
<tr>
<td>Trade/apprenticeship</td>
<td>6 (3.9)</td>
</tr>
<tr>
<td>Other certificate</td>
<td>46 (30.1)</td>
</tr>
<tr>
<td>Associate or undergraduate diploma</td>
<td>16 (10.5)</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>31 (20.3)</td>
</tr>
<tr>
<td>Demographic characteristic</td>
<td>n (%) (unless specified)</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Higher degree</td>
<td>16 (10.5)</td>
</tr>
<tr>
<td>Unspecified</td>
<td>7 (4.6)</td>
</tr>
<tr>
<td>No further education</td>
<td>31 (20.3)</td>
</tr>
<tr>
<td>Currently studying</td>
<td>41 (26.8)</td>
</tr>
<tr>
<td>Trade/apprenticeship</td>
<td>2 (4.9)</td>
</tr>
<tr>
<td>Other certificate</td>
<td>9 (22.0)</td>
</tr>
<tr>
<td>Associate or undergraduate diploma</td>
<td>5 (12.2)</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>14 (34.1)</td>
</tr>
<tr>
<td>Higher degree</td>
<td>8 (19.5)</td>
</tr>
<tr>
<td>Unspecified</td>
<td>3 (7.3)</td>
</tr>
<tr>
<td>Studying full-time</td>
<td>14 (34.1)</td>
</tr>
<tr>
<td>Studying part-time</td>
<td>27 (65.9)</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>36 (23.2)</td>
</tr>
<tr>
<td>Part-time, looking for full time work</td>
<td>5 (3.2)</td>
</tr>
<tr>
<td>Part-time</td>
<td>31 (20.0)</td>
</tr>
<tr>
<td>Unemployed – looking for work</td>
<td>16 (10.3)</td>
</tr>
<tr>
<td>Not in the labour force</td>
<td>67 (43.2)</td>
</tr>
<tr>
<td>Main reason for not being in the labour force¹</td>
<td></td>
</tr>
<tr>
<td>Home duties, caring for children</td>
<td>17 (25.4)</td>
</tr>
<tr>
<td>Retired, voluntarily out of the work force</td>
<td>7 (10.5)</td>
</tr>
<tr>
<td>Studying</td>
<td>12 (17.9)</td>
</tr>
<tr>
<td>Caring for aged, disabled or ill person</td>
<td>4 (6.0)</td>
</tr>
<tr>
<td>Recovering from illness or injury</td>
<td>25 (37.3)</td>
</tr>
<tr>
<td>Voluntary work</td>
<td>3 (4.5)</td>
</tr>
<tr>
<td>Other</td>
<td>8 (11.9)</td>
</tr>
<tr>
<td>Current main occupation²</td>
<td></td>
</tr>
<tr>
<td>Manager/administrator</td>
<td>3 (2.3)</td>
</tr>
<tr>
<td>Professional</td>
<td>29 (22.3)</td>
</tr>
<tr>
<td>Associate professional</td>
<td>9 (6.9)</td>
</tr>
<tr>
<td>Tradesperson or related worker</td>
<td>7 (5.4)</td>
</tr>
<tr>
<td>Advanced clerical or service worker</td>
<td>21 (16.2)</td>
</tr>
</tbody>
</table>

¹ Some participants selected more than one response.
² For further details of the coding of this variable, see Section 3.5.1

81
<table>
<thead>
<tr>
<th>Demographic characteristic</th>
<th>n (%) (unless specified)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate clerical, sales or service worker</td>
<td>20 (15.4)</td>
</tr>
<tr>
<td>Intermediate production or transport worker</td>
<td>1 (0.8)</td>
</tr>
<tr>
<td>Elementary clerical, sales and service worker</td>
<td>14 (10.8)</td>
</tr>
<tr>
<td>Labourer or related worker</td>
<td>2 (1.5)</td>
</tr>
<tr>
<td>Home duties or carer</td>
<td>15 (11.5)</td>
</tr>
<tr>
<td>Student</td>
<td>9 (6.9)</td>
</tr>
<tr>
<td>Past main occupation</td>
<td></td>
</tr>
<tr>
<td>Manager/administrator</td>
<td>7 (6.1)</td>
</tr>
<tr>
<td>Professional</td>
<td>28 (24.3)</td>
</tr>
<tr>
<td>Associate professional</td>
<td>5 (4.3)</td>
</tr>
<tr>
<td>Tradesperson or related worker</td>
<td>6 (5.2)</td>
</tr>
<tr>
<td>Advanced clerical or service worker</td>
<td>20 (17.4)</td>
</tr>
<tr>
<td>Intermediate clerical, sales or service worker</td>
<td>21 (18.3)</td>
</tr>
<tr>
<td>Intermediate production or transport worker</td>
<td>1 (0.9)</td>
</tr>
<tr>
<td>Elementary clerical, sales and service worker</td>
<td>24 (20.9)</td>
</tr>
<tr>
<td>Labourer or related worker</td>
<td>3 (2.6)</td>
</tr>
</tbody>
</table>

### 3.3.2 Mental health

At screening, the mean psychological distress score (measured using the K10, (Kessler et al., 2002) of participants was 32.8 (SD = 5.8). This falls in the very high range. 93.5% (n = 144) of participants indicated that they had been markedly depressed at some time in the past and 88.2% (n = 127) of those who had been depressed said that they had sought help from a doctor or counsellor for their depression at the time. 75.2% (n = 115) reported having experienced an anxiety or panic attack in the last four weeks, and 80.9% (n = 93) of these participants reported that they were extremely bothered by these attacks. 61.6% (n = 93) of participants reported having experienced symptoms of social phobia, and 16.4% (n = 25) reported having experienced a specific phobia.
3.4 Procedure

3.4.1 Study design

A 2 x 2 factorial randomised controlled trial was used in the current study to investigate the main effects and interactions of an Internet-based intervention and weekly telephone tracking across four measurement occasions (these are described in further detail in Section 3.6). The trial contained four conditions, shown in Table 3.2.

Table 3.2 Trial conditions

<table>
<thead>
<tr>
<th>Factor 1: Internet intervention</th>
<th>Factor 2: Telephone tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>Present</td>
</tr>
<tr>
<td>Condition 1</td>
<td>Condition 3</td>
</tr>
<tr>
<td>(Internet intervention with tracking)</td>
<td>(No Internet intervention with tracking)</td>
</tr>
<tr>
<td>Absent</td>
<td>Absent</td>
</tr>
<tr>
<td>Condition 2</td>
<td>Condition 4</td>
</tr>
<tr>
<td>(Internet intervention without tracking)</td>
<td>(No Internet intervention and no tracking)</td>
</tr>
</tbody>
</table>

3.4.2 Ethics approval

The trial protocol (prepared in accordance with the National Health and Medical Research Council’s National Statement on Ethical Conduct in Research Involving Humans) was submitted for approval to the Australian National University Human Research Ethics Committee in February 2007. Approval to conduct the trial was granted in March 2007. Approval for subsequent variations to the original trial protocol were sought and granted during the course of the trial. The trial was registered with Current Controlled Trials (ISRCTN93903959).
3.4.3 Staff and volunteer training

Lifeline telephone counsellors were responsible for recruiting participants into the trial. Training was provided to Lifeline staff and volunteers prior to the start of recruitment in each telephone counselling centre. Prior to the start of the trial in the Brisbane call centre, staff attended a presentation outlining the aims of the project, and the processes involved in participant recruitment. A similar presentation was also incorporated into the training course for new telephone counsellors. Training for existing telephone counsellors was provided 'on shift', based on consultation with the service managers, as this was considered the most effective and efficient way to reach each counsellor. On shift training was conducted in two phases over a period of four weeks leading up to the start of recruitment with each training phase lasting two weeks to coincide with the telephone counselling shift roster. During the first phase of training, telephone counsellors were asked to familiarise themselves with a manual outlining the trial and the steps involved in recruitment (see Appendix 4). They were also provided with a script for use when recruiting participants, to minimise anxiety and ensure consistency between telephone counsellors. The trial coordinator was present at the start of each shift to answer questions and provide the counsellors with their training materials. On their next shift (during the second phase of training), telephone counsellors were asked to practice with each other using the recruitment script and recording participant data using the online program provided. Participant recruitment commenced in Brisbane at the end of the four week training period.

A similar method was used to train staff and volunteers in other centres (Sunshine Coast, Capricorn Coast, Melbourne and Sydney). The trial coordinator visited each centre to meet with staff and provide materials for recruitment. Telephone counsellors completed training on shift, with supervision from staff on site and from the trial coordinator by telephone.
3.4.4 Participant recruitment

In each participating counselling centre, participants were recruited into the trial through the telephone counselling line. During or at the conclusion of a counselling call, telephone counsellors invited suitable callers to receive further information about the project, using the following script (see also Appendix 5):

‘Before we finish talking I just wanted to let you know about a new program that is giving callers some additional help and support if they are feeling down or stressed. We are testing this program out with The Australian National University. If you are interested, the project coordinator can call you back and talk to you about the program. Your involvement in the project is entirely voluntary. Would you be interested in finding out more information?’

Callers experiencing high levels of distress and/or suicidal ideation were excluded from this invitation. Counsellors then screened callers willing to receive further information for Internet access, using the following script:

‘Some of the programs are Internet-based and to be involved you would need to have access to the Internet. Do you have access or could you get access to the Internet? It could be at home, at work, at a library, or at an Internet cafe.’

Those with Internet access were asked to provide their name, a contact telephone number and a preferred time to be called back to discuss their involvement in the project:
‘Now can I take your contact details so that the project coordinator can call you back? These contact details will be kept separate from this call and any calls you may make to Lifeline in the future, and will only be accessed by authorised project staff. Is that ok? What is the best time to call you back? You should receive a call in the next few days.’

Callers were thanked and the counselling call was concluded as usual.

Telephone counsellors recorded all information from callers using the secure online survey program LimeSurvey (Schmitz, 2003). All data were downloaded from this program by project staff in order to screen callers interested in participating.

Participant recruitment was staggered over a period of 19 months from July 2007 until January 2009. Table 3.3 shows the duration of recruitment in each telephone counselling centre and numbers of participants recruited from each centre.

**Table 3.3** Numbers of participants recruited from each counselling centre

<table>
<thead>
<tr>
<th>Centre</th>
<th>Duration of recruitment</th>
<th>Numbers (%) of participants recruited across all centres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brisbane</td>
<td>July 2007-August 2008 (14 months)</td>
<td>112 (72.3%)</td>
</tr>
<tr>
<td>Sunshine Coast</td>
<td>August 2007-August 2008 (13 months)</td>
<td>14 (9.0%)</td>
</tr>
<tr>
<td>Capricorn Coast</td>
<td>May 2008-August 2008 (4 months)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Melbourne</td>
<td>June 2008-August 2008 (3 months)</td>
<td>19 (12.3%)</td>
</tr>
<tr>
<td>Sydney</td>
<td>November 2008-January 2009 (3 months)</td>
<td>10 (6.5%)</td>
</tr>
</tbody>
</table>
The target sample size for the trial was 400 participants, with 100 participants in each trial condition. However, the recruitment of participants occurred at a slower rate than was initially anticipated. The main reason for this was the low rate of eligible callers who were provided with an initial invitation to participate in the trial. During the entire recruitment phase of the trial, 34,722 counselling calls were received by the Lifeline centres involved in recruitment. Based on previously collected data, it can be estimated that 5.8% of these calls were suicide related, and thus, ineligible for recruitment (Lifeline Australia, 2009). Recurrent callers were also ineligible for an invitation, and based on data from recent caller surveys; an estimated 40% to 60% of calls received by Lifeline would have fallen into this category (Burgess, Christensen, Griffiths, & Farrer, 2010; Perkins & Fanaian, 2004). The remaining 45% to 65% of callers would have been eligible to receive an invitation to participate, but in fact only 16.5% of all potentially eligible callers (3143 of 19,097) were invited to participate in the trial, as indicated in Table 3.4.

Table 3.4 Average numbers of calls received and callers invited to participate, by telephone counselling centre

<table>
<thead>
<tr>
<th>Centre</th>
<th>Number of calls received during recruitment period</th>
<th>Numbers of participants invited to participate in trial (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brisbane</td>
<td>21583</td>
<td>2318 (10.7%)</td>
</tr>
<tr>
<td>Sunshine Coast</td>
<td>4283</td>
<td>287 (6.7%)</td>
</tr>
<tr>
<td>Capricorn Coast</td>
<td>277</td>
<td>30 (10.8%)</td>
</tr>
<tr>
<td>Melbourne</td>
<td>5969</td>
<td>350 (5.9%)</td>
</tr>
<tr>
<td>Sydney</td>
<td>2660</td>
<td>158 (5.9%)</td>
</tr>
</tbody>
</table>
Several strategies were employed to encourage telephone counsellors to increase the numbers of recruitment invitations they provided. An on-site trial manager was based in the Brisbane and Sunshine Coast call centres, as these centres were the most intensively involved in recruitment. In these centres, recruitment was ongoing and did not have a pre-determined end date. As a result, telephone counsellors often forgot or lost motivation to invite callers as time progressed. Periodically, telephone counsellors were offered incentives to encourage them to invite callers to participate in the trial. Incentives included $10 gift certificates and coffee vouchers for those counsellors who invited a certain number of callers to participate in the trial, irrespective of whether the callers they invited were eligible or willing to participate. Special ‘recruitment weeks’ were held to boost awareness of the project and remind telephone counsellors to continue to invite callers to participate. During ‘recruitment week’, colourful posters promoting the ECCO trial were displayed in the telephone counselling area, and random prize draws were held for telephone counsellors who continued to invite callers. Time-limited recruitment periods (3-4 months) were used in the Capricorn Coast, Melbourne and Sydney call centres, in an effort to encourage telephone counsellors to invite as many callers as possible during that time and to combat the motivational issues experienced by counsellors in centres with longer recruitment periods. In all centres, updates and preliminary outcomes of the trial were provided to telephone counsellors on an ongoing basis to keep them informed of their contribution to the progress of the project. The implementation of these recruitment facilitating strategies was associated with moderate spikes in numbers of recruitment invitations. However, the strategies mainly rewarded counsellors who were already inviting callers to participate, and were less effective at encouraging the counsellors who were not offering invitations to callers at all.
3.4.5 Screening

Interested participants recruited through the initial invitation were telephoned by a project staff member and provided with further information about the rationale of the trial, voluntary participation, randomisation, and time required to participate. Callers were also asked a series of self-report screening questions to assess their eligibility for participation in the trial. See Appendix 6 for a copy of the screening script.

Callers were considered eligible for inclusion in the trial if they met the following criteria:

- Willingness to participate;
- English speaking;
- Internet access for at least half an hour a week (initially screened for at the invitation stage, and confirmed at screening);
- Age 18 years or older;
- A score of 22 or above on the Kessler Psychological Distress Scale (K10) (Kessler et al., 2002). The K10 is a 10-item, dimensional measure of non-specific psychological distress. Example items include ‘How often did you feel tired out for no good reason?’, ‘How often did you feel hopeless?’ and ‘How often did you feel so nervous that nothing could calm you down?’.

Responses are recorded using a 5-point scale ranging from ‘None of the time’ to ‘All of the time’. Item scores are summed to create a total scale score ranging from 10 to 50, with higher scores indicating greater psychological distress. The K10 has good internal consistency (Cronbach’s alpha coefficients 0.92-0.93), and correlates well with other symptom and

A score of 22 was chosen based on the cutoffs used in the 2000 Health and Wellbeing Survey and the ABS 2001 National Health Survey Summary of Results (Australian Bureau of Statistics, 2001b; Health and Wellbeing Survey, 2000). This classification scheme uses four levels of psychological distress (see Table 3.5), with a score of 22-29 indicating a ‘high’ level of psychological distress.

**Table 3.5 K10 cutoff scores used in 2000 Health and Wellbeing survey**

<table>
<thead>
<tr>
<th>K10 score</th>
<th>Level of psychological distress</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 – 15</td>
<td>Low</td>
</tr>
<tr>
<td>16 – 21</td>
<td>Moderate</td>
</tr>
<tr>
<td>22 – 29</td>
<td>High</td>
</tr>
<tr>
<td>30 – 50</td>
<td>Very High</td>
</tr>
</tbody>
</table>

Participants were excluded from the trial on the basis of the following criteria:

- A self-reported current or previous diagnosis of psychosis, schizophrenia or bipolar disorder;
- Currently receiving cognitive behaviour therapy (CBT);
- Self-reported reading impairment

Alternative materials were mailed to participants who were ineligible for the trial, depending on their reason for ineligibility. Those who obtained a score in the
moderate psychological distress on the K10 (a score of 16-21) were offered information about the online programs BluePages and MoodGYM and encouraged to use these programs (See Appendix 7 for a copy of the information provided). Participants who were ineligible due to a diagnosis of psychosis, schizophrenia, or bipolar disorder were mailed a resource pack containing information about these disorders and relevant referral information (See Appendix 8 for a copy of these resources).

3.4.6 Consent, randomisation and intervention procedures

Following screening, eligible participants who were willing to participate in the trial were assigned an ID code and sent a pack of trial materials containing a project information sheet for their records, a consent form, and a pre-intervention assessment questionnaire. The reader is referred to Appendices 9 and 10 for copies of the information sheet and consent form provided to participants. Participants were asked to read the information sheet, sign the consent form and return it with the completed pre-intervention questionnaire. A reminder call was made two weeks following posting of the materials to callers who had not yet returned their consent form and questionnaire.

Participants were randomised to one of the four trial conditions following the return of their consent form and pre-intervention questionnaire. A stratified randomisation procedure was used to minimise the potential for unequal distribution of prognostic participant characteristics between trial conditions. Participants were categorised based on the location of the call centre from which they were recruited, their sex and the severity of their symptoms on the K10 at screening (High (K10 score = 27-50)/Low (K10 score = 22-26). The K10 severity cutoff was chosen using data
from a previous community trial of an Internet intervention for depression (Christensen et al., 2004a). The distribution of K10 scores above 22 (the cutoff used for inclusion in the trial) was divided equally into the following bands: 22-24 (Mild), 25-29 (Moderate), 30-50 (Severe). To avoid the generation of too many strata combinations, the moderate band was divided into two, creating two severity strata: 22-26 (Low) and 27-50 (High). Twenty randomisation schedules were generated by a statistician based on the following strata combinations:

- Brisbane/Male/High
- Brisbane/Male/Low
- Brisbane/Female/High
- Brisbane/Female/Low
- Sunshine Coast/Male/High
- Sunshine Coast/Male/Low
- Sunshine Coast/Female/High
- Sunshine Coast/Female/Low
- Capricorn Coast/Male/High
- Capricorn Coast/Male/Low
- Capricorn Coast/Female/High
- Capricorn Coast/Female/Low
- Melbourne/Male/High
- Melbourne/Male/Low
- Melbourne/Female/High
- Melbourne/Female/Low
- Sydney/Male/High
- Sydney/Male/Low
These randomisation schedules were stored electronically by an independent researcher not involved with the trial. Upon receipt of a participant’s consent form and pre-intervention questionnaire, their ID code and randomisation classification was provided to the independent researcher, who allocated the participant to the next available trial condition within the relevant randomisation schedule. Once randomised, participants were mailed the materials relevant to their allocated condition (for details, see Section 3.6). One week following the mail-out of materials, participants were phoned to start their involvement in the intervention phase of the project. Six weeks later, participants were phoned again to formally end the intervention phase of the trial. All telephone calls to participants were made by paid telephone counsellors and the trial coordinator. During the intervention period, all participants were free to utilise Lifeline’s telephone counselling service as usual.

3.5 Measures

Participants were assessed at a number of time points throughout their involvement in the trial. As described above, participants were assessed at screening, to determine their eligibility for inclusion in the study. All participants were then assessed at pre-intervention to obtain baseline data on the primary and secondary outcome measures. Participants who were assigned to a trial condition involving the Internet intervention (‘Internet only’ and ‘Internet plus tracking’) completed an additional assessment at pre-intervention designed to measure their motivation for undertaking the intervention. All participants were scheduled for assessment at post-intervention and at 6 and 12 months post-intervention. In addition, those participants
allocated to an Internet intervention condition who completed less than three modules of MoodGYM were followed up at post-intervention with a structured telephone interview to assess their reasons for low adherence to the intervention.

With the exception of the selected telephone interviews, all measures were administered using questionnaires mailed to participants together with reply-paid envelopes in which to return completed questionnaires. If participants did not return a survey within three weeks of the survey being mailed to them, they were telephoned and sent a reminder letter and an additional copy of the survey.

Table 3.6 outlines the measures administered at each stage of the trial. Full details of these measures are available in Appendices 11-21. All measures were selected based on their strong psychometric properties and previous use with diverse community samples (and if possible, Australian samples). Given the large number of outcome measures, shortened versions of scales (with adequate psychometric properties) were chosen in an effort to minimise respondent fatigue and dropout.

Table 3.6 Measures contained in screening, pre-intervention, post-intervention and follow-up questionnaires

<table>
<thead>
<tr>
<th>Measure</th>
<th>Screening</th>
<th>Pre-intervention</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kessler-10</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NML-P(^3)</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demographics</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression history</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help for depression</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panic</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^3\) These items were administered only to participants who received an Internet treatment condition.
<table>
<thead>
<tr>
<th>Measure</th>
<th>Screening</th>
<th>Pre-intervention</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social phobia</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific phobia</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CES-D</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>DASS Anxiety Scale</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ATQ (short-form)</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>EURO-HIS 8</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Work interruption</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>AUDIT</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Suicidal ideation</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Beliefs about Internet treatments</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mental health literacy</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Help seeking</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Depression literacy</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CBT literacy</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Lifeline use</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Condition preference</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Website usage&lt;sup&gt;4&lt;/sup&gt;</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Satisfaction with participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with telephone tracking&lt;sup&gt;5&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

<sup>4</sup> These items were administered only to participants who received an Internet treatment condition.

<sup>5</sup> These items were administered only to participants who received telephone tracking.
At the completion of recruitment at each Lifeline call centre, telephone counsellors were invited to participate in a feedback survey to assess their experiences with recruiting participants into the trial (see Appendix 22).

### 3.5.1 Demographic measures

At pre-intervention, the following demographic information was measured: sex, age (years), relationship status, highest level of primary or secondary education, highest level of post-secondary education, qualifications currently studied for, intensity of current study, employment status and current and past occupation. Table 3.1 contains the response categories for relationship status, highest level of primary or secondary education, highest level of post-secondary education, qualifications currently studied for, intensity of current study, and employment status. Level of education was also recoded into a continuous variable (total years of education). For years of primary education, ‘some of primary’ was coded as 3.5 years (which is the median of 7 years of primary school), ‘all of primary’ was coded as 7 years, ‘some of secondary’ was coded as 9 years (which is the median value between ‘all of primary’ (7 years) and ‘four years of secondary (11 years)’, ‘four years of secondary’ was coded as 11 years, and ‘six years of secondary’ was coded as 13 years. For years of

---

6 This scale was administered via telephone to participants who received an Internet treatment condition and completed less than 3 MoodGYM modules.
tertiary education, 'trade/apprenticeship' was coded as 1.5 years, 'other certificate' was coded as 1 year, 'associate or undergraduate diploma' was coded as 1 year, 'Bachelor's degree' was coded as 3 years, 'higher degree' was coded as 5 years, 'other' was coded as 1 year and 'none' was coded as 0 years.

Participants were asked to describe their current and past occupation using the following open-ended questions: 'What is your main or usual occupation?' and 'If you have been employed in the past, what was your main or usual job?'. Open-ended responses were coded according to the Australian Standard Classification of Occupations (ASCO), published by the Australian Bureau of Statistics (McLennan, 1997). Current occupation was coded into the following categories: managers and administrators (project managers, organisational managers), professionals (academics, teachers, senior health professionals), associate professionals (laboratory technicians, enrolled nurses, police officers), tradespersons and related workers (toolmakers, automotive apprentices, butchers), advanced clerical and service workers (secretaries, personal assistants, insurance agents), intermediate clerical, sales and service workers (receptionists, clerical workers, hospitality workers), intermediate production and transport workers (construction workers, drivers), elementary clerical, sales and service workers (mail/filing clerk, sales assistant) and labourers and related workers (cleaners, factory workers, general labourers). Two additional categories were added to code responses that did not fit any ASCO categories: home duties/caring responsibilities and studying.

3.5.2 Depression and anxiety history

Participants were asked a series of short screening questions to assess previous experience of depression or anxiety symptoms. Previous history of depression was
assessed with the yes/no question: ‘Have you ever in your life been markedly depressed; that is, for several weeks or more, you felt sad, lost interest in things and felt lacking in energy?’ Participants were also asked to indicate ‘yes’ or ‘no’ to the question, ‘Did you see a counsellor or a doctor for it at the time?’

Previous experience of panic was assessed using the following yes/no questions: ‘In the last 4 weeks, have you had an anxiety attack – a sudden feeling of fear or panic?’ and ‘Do these attacks bother you a lot, or are you worried about having another attack?’ These questions were taken from the Patient Health Questionnaire (Spitzer et al., 1999), a self-report instrument adapted from the Primary Care Evaluation of Mental Disorders (PRIME-MD) (Spitzer, Williams, Kroenke, Linzer, deGruy, Hahn, Brody, & Johnson, 1994).

Social phobia was assessed with the following yes/no question: ‘Do you have any of the following fears so that you avoid them: eating or drinking with other people, being watched or stared at, talking to people in authority, being criticised, or speaking to an audience?’ The fears listed in the question are five items from the Fear Questionnaire (Marks & Mathews, 1979) that are designed to measure social phobia.

Specific phobia was assessed with the yes/no question: ‘Are you frightened of spiders, snakes or other animals so much that it interferes with your coping capacity?’ Animal phobias were chosen for this question as they are among the most commonly recognised and prevalent subtypes of specific phobia (Beckera, Rincka, Türkeb, Kauseb, Goodwinc, Neumerd, & Margrafe, 2007).

3.5.3 Depression

Depression symptomatology was assessed using the Center for Epidemiologic Studies Depression Scale (CES-D; (Radloff, 1977). The CES-D is a widely-used, 16-
item scale developed to assess severity of depression symptoms in the general population. The CES-D measures components of depressive symptomatology such as depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance. Examples of items include: ‘I felt I could not shake off the blues even with help from my family or friends’ and ‘I thought my life had been a failure’. The scale also includes four reverse-scored, positively worded items. Respondents were asked to rate the frequency of occurrence of each item over the last week using the following response categories: ‘Rarely or none of the time (less than 1 day)’, ‘Some or a little of the time (1-2 days)’, ‘Occasionally or a moderate amount of time (3-4 days)’, and ‘Most or all of the time (5-7 days)’. Responses were scored from 0 to 3, yielding a possible range of scores from 0 to 60, with higher scores indicating greater symptom frequency. A cutoff score of 16 or above is commonly used to indicate a clinically significant level of symptomology (Radloff, 1977).

The CES-D has been widely used in both epidemiological and clinical studies, and the reliability and validity of the scale has been evaluated extensively. Estimates of internal reliability of the CES-D in community samples range from 0.83 to 0.93 (Knight, Williams, McGee, & Olaman, 1997; Radloff, 1977; Roberts, 1980; Ross & Mirowsky, 1984). These estimates are robust among respondents from different ethnic backgrounds (Roberts, 1980) and with different physical health conditions (Devins, Orme, Costello, Binik, Frizzell, Stam, & Pullin, 1988). The CES-D also shows good test-retest reliability for shorter time periods, with estimates for time periods of 2 to 8 weeks ranging from 0.51 to 0.67 (Radloff, 1977). Estimates for longer time periods (3 to 12 months) range from 0.32 to 0.61 (Devins et al., 1988; Radloff, 1977). The CES-D has been shown to discriminate between clinical and non-clinical samples, and between depressive illness and other psychiatric conditions.
(Radloff, 1977; Weissman, Sholomskas, Pottenger, Prusoff, & Locke, 1977). It also correlates well with other commonly used measures of depression (Roberts & Vernon, 1983; Weissman et al., 1977), and CES-D scores have been demonstrated to be sensitive to change in populations receiving treatment (Husaini, Neff, Harrington, Hughes, & Stone, 1980; Weissman et al., 1977). Some limitations of the CES-D have been reported, namely that it may not be as useful in assessing change in depression symptomatology as other depression scales, and that the scale is not based on the current or previous Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000) criteria for Major Depressive Disorder (Eaton, Muntaner, Smith, Tien, & Ybarra, 2004). The internal consistency of the CES-D at pre-intervention in the current sample was 0.87 ($N = 146$). The 9 week test-retest reliability coefficient for the control condition was 0.50 ($p<.01; N = 106$).

3.5.4 Anxiety

Anxiety symptomatology was assessed using the anxiety subscale of the Depression Anxiety Stress Scales (DASS; Lovibond & Lovibond, 1995). The DASS is composed of three self-report scales, each containing 14 items, designed to measure the constructs of depression, anxiety and general stress. The three subscales are designed to be administered collectively; however it is acceptable to administer any of the 14 item subscales independently. The anxiety subscale assesses the following: autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. Example items from the DASS anxiety subscale include: ‘I felt I was close to panic’ and ‘I experienced trembling (e.g. in the hands)’. Item responses are scored on the following 4-point scale: ‘Did not apply to me at all’, ‘Applied to me to some degree, or some of the time’, ‘Applied to me to a considerable
degree, or a good part of the time’, and ‘Applied to me very much, or most of the time’. Respondents were asked to base their responses on how they have been feeling during the past week. The possible range of scores was 0 to 42, with higher scores indicating higher symptom severity. The following cutoff scores have been used to categorise severity on the DASS anxiety scale: normal (0-7), mild symptoms (8-9), moderate symptoms (10-14), severe symptoms (15-19), extremely severe symptoms (20+).

The DASS anxiety scale has good internal consistency, with reported Cronbach’s alpha coefficients ranging from 0.84 to 0.92 (Lovibond & Lovibond, 1995a; Page, Hooke, & Morrison, 2007). In the short-term, test-retest reliability estimates range from 0.44 (8 weeks, non-clinical sample) to 0.73 (in-patient admission to discharge, clinical sample) (Lovibond, 1997; Page et al., 2007). Reliability is slightly lower (0.41) over a long time period (3 to 8 years) (Lovibond, 1998). The scale is sensitive to treatment change and correlates highly with other commonly used measures of anxiety, including the Beck Anxiety Inventory ($r=0.81$) (Lovibond & Lovibond, 1995b; Page et al., 2007). In the current study, internal consistency for the DASS anxiety scale was 0.89 at pre-intervention ($N = 150$). Nine week test-retest reliability for the control condition was 0.71 ($p<.01$; $N = 106$).

3.5.5 Dysfunctional thinking

Dysfunctional thinking was assessed using a shortened form of the Automatic Thoughts Questionnaire (ATQ-8; (Netemeyer, Williamson, Burton, Biswas, Jindal, Landreth, Mills, & Primeaux, 2002). The ATQ-8 is an 8-item scale composed of items from the original 30-item ATQ (Hollon & Kendall, 1980). The ATQ-8 is designed to measure the frequency of negative thoughts commonly experienced by
people with depression. Example items include: 'I'm no good', 'I'm worthless', and 'My future is bleak'. Respondents were asked to rate the frequency of negative thoughts during the past week on the following 5-point scale: 'Not at all', 'Sometimes', 'Moderately often', 'Often', and 'All the time'. The possible range of scores was 0 to 32, with higher scores indicating higher frequency of negative thinking. The shortened version of the scale was chosen because it largely retains the psychometric properties of the original scale, and efforts were taken when designing the overall questionnaire to minimise non-response and respondent fatigue wherever possible.

The internal consistency of the ATQ-8 is strong, and similar to the 30-item version of the scale (Cronbach’s alpha coefficients of 0.92 and 0.97, respectively) (Netemeyer et al., 2002). Given the relatively recent development of the ATQ-8, studies investigating other psychometric properties of the scale are scant. However, the internal consistency and construct validity of the 30-item ATQ has been established (Harrela & Ryon, 1983; Hollon & Kendall, 1980). The ATQ has also been shown to discriminate effectively between clinical and non-clinical samples (Hill, Oei, & Hill, 1989). Internal consistency for the ATQ-8 in the current sample was high, with a Cronbach’s alpha coefficient of 0.90 ($N = 150$). Nine week test-retest reliability in the control condition was 0.61 ($p<.01$, $N = 103$).

### 3.5.6 Quality of life

Quality of life was assessed using the EUROHIS-QOL 8-item index (EUROHIS-8; (Schmidt, Muhlan, & Power, 2006). The EUROHIS-8 was developed as part of the WHOQOL Project, which aimed to produce an international, cross-culturally comparable quality of life assessment instrument (World Health
Organization, 1993). Items for the EUROHIS-8 were extracted from the larger WHOQOL-100 and WHOQOL-BREF scales, both of which have well-established psychometric properties (WHOQOL Group, 1998a, 1998b). The EUROHIS-8 is composed of 8 items designed to measure the psychological, physical, social and environmental aspects of quality of life. Example items include: ‘How would you rate your quality of life?’, ‘How satisfied are you with your ability to perform your daily activities?’, and ‘How satisfied are you with the conditions of your living place?’ Item responses are scored on a 5-point scale, with response categories ranging from ‘Very dissatisfied’ to ‘Very satisfied’, ‘Very poor’ to ‘Very good’, and ‘Not at all’ to ‘Completely’. Item responses were summed, producing a total score ranging from 0 to 32, with higher scores indicating higher quality of life.

Studies have demonstrated sound internal consistency for the EUROHIS-8 in multiple international samples, with Cronbach’s alpha coefficients of 0.78 (Power, 2003) and 0.83 (Schmidt et al., 2006). The scale correlates moderately with other measures of physical health ($r = 0.53$) and mental health ($r = 0.49$), and distinguishes between healthy and ill populations (Schmidt et al., 2006). The internal consistency of the EUROHIS-8 for the current sample was 0.79 ($N = 151$), and the 9 week test-retest reliability estimate was 0.69 ($p < .01; N = 104$).

3.5.7 Disablement

Two items from the Medical Outcomes Study Short Form-12 item (SF-12) scale were used to measure the extent of disability and disruption felt by participants due to emotional problems (Ware Jr, Kosinski, & Keller, 1996). The SF-12 is a general measure of health and wellbeing, composed of items from a larger, 36 item version of the scale. Respondents were asked to indicate ‘yes’ or ‘no’ to the following
items chosen from the SF-12 to measure disableness: 'During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious): (1) Accomplished less than you would like? (2) Didn’t do work or other activities as carefully as usual?''

The SF-12 has been used previously as a disability measure with regard to depression and anxiety disorders (Sanderson & Andrews, 2002a). Preliminary studies with an Australian sample have shown that the scale has adequate power to discriminate between community and clinical populations (Sanderson & Andrews, 2002b; Sanderson, Andrews, & Jelsma, 2001). Other studies report test-retest reliability estimates of 0.73 (Resnick & Parker, 2001) and 0.89 (Ware Jr et al., 1996). The SF-12 has adequate internal consistency (Cronbach’s alpha coefficients ranging from 0.72-0.89) (Resnick & Parker, 2001), and correlates well with other similar measures (Macran, Weatherly, & Kind, 2003). The SF-12 has adequate sensitivity to change (Lenert, Sherbourne, Sugar, & Wells, 2000; Riddle, Lee, & Stratford, 2001).

3.5.8 Hazardous alcohol use

Hazardous alcohol consumption was measured using a 5-item version of the Alcohol Use Disorders Identification Test (AUDIT) (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). The AUDIT was developed by the World Health Organization to identify hazardous and harmful alcohol consumption. The 5-item version of the scale assesses the amount and frequency of drinking as well as problems caused by excessive alcohol consumption. Example items include: ‘How often do you have a drink containing alcohol?’, ‘How many drinks containing alcohol do you have on a typical day when drinking?’, and ‘How often during the past year have you failed to
do what was expected of you because of drinking?’ Four of the items were measured on a 5-point scale and one was measured using a 3-point scale. Item scores were summed to provide a total scale score ranging from 0 to 20, with higher scores indicating greater hazardous alcohol use. A score of 5 or above is indicative of hazardous alcohol consumption (Piccinelli, Tessari, Bortolomasi, Piasere, Semenzin, Garzotto, & Tansella, 1997).

The internal consistency of the original version of the AUDIT has been consistently demonstrated with diverse samples across a broad range of settings (Reinert & Allen, 2002). A number of studies have shown short to intermediate term stability of the AUDIT, with test-retest reliability estimates ranging from 0.64 to 0.92 over periods ranging from 2 to 6 weeks (Daeppen, Yersin, Landry, Pecoud, & Decrey, 2000; Maisto, Conigliaro, McNeil, Kraemer, & Kelley, 2000). The sensitivity and specificity of the 5-item version of the scale is similar to that of the full AUDIT (Piccinelli et al., 1997). Internal consistency of the 5-item AUDIT in the current sample was good (Cronbach’s alpha coefficient = 0.87, N = 107), and the 9 week test-retest reliability estimate was 0.88 (N = 61).

3.5.9 Suicidal ideation

Suicidal ideation was measured using 4 items from the 28-item General Health Questionnaire (GHQ-28; (Goldberg & Hillier, 1979). The GHQ-28 contains four questions specifically designed to measure suicidal ideation, and asks respondents to indicate how they have felt over the last few weeks. The first two items: ‘Have you recently felt that life is not worth living’ and ‘Have you recently found yourself wishing you were dead and away from it all’ were scored on the following 4-point scale: ‘Not at all’, ‘No more than usual’, ‘Rather more than usual’ or ‘Much more than
usual’. The remaining two items: ‘Have you recently had thoughts of the possibility that you might do away with yourself’ and ‘Have you recently found that the idea of taking your own life kept coming into your mind’ were scored on the following 4-point scale: ‘Definitely not’, ‘I don’t think so’, ‘Has crossed my mind’ or ‘Definitely has’. The items were scored in a binary manner, with the negatively-worded response categories (Not at all, No more than usual, Definitely not, and I don’t think so) scored with a 0, and the positively-worded response categories scored with a 1. Scores for each item were summed to provide a total scale score ranging from 0 to 4, with a higher score indicating higher suicidal ideation.

The 28-item version of the GHQ-28 has been validated in Australian populations (Tennant, 1977). The four items from the GHQ-28 have been used extensively by Goldney and colleagues to assess suicidal ideation in a number of Australian samples (Goldney, Smith, Winefield, Tiggeman, & Winefield, 1991; Goldney, Wilson, Dal Grande, Fisher, & McFarlane, 2000; Goldney, Winefield, Saebel, Winefield, & Tiggeman, 1997), and the items correlate well with other well-established measures of suicidal intent and hopelessness (Goldney, Winefield, Tiggemann, Winefield, & Smith, 1989; Watson, Goldney, Fisher, & Merritt, 2001).

3.5.10 Beliefs about Internet treatments

Participants’ beliefs about the usefulness of Internet treatments were assessed using two items developed by Kathy Griffiths. Participants were asked: ‘I am confident that people could learn skills for preventing depression from a website’ and ‘I am confident that a website could help people understand depression better’. Responses were scored on a 5-point scale ranging from ‘Strongly agree’ to ‘Strongly disagree’. Scores on each item were summed to create a total score ranging from 0 to
8, with higher scores indicating stronger agreement with the items (i.e. more positive beliefs about Internet treatments).

3.5.11 Knowledge of medical, psychological and alternative treatments for depression

Participants’ mental health literacy was assessed using a list of common evidence-based and non evidence-based treatments for depression. Mental health literacy refers to ‘knowledge and beliefs about mental disorders which aid their recognition, management or prevention’ (Jorm, Korten, Jacomb, Christensen, Rodgers, & Pollitt, 1997). Participants were asked to indicate, for each treatment, whether they believed it was ‘Helpful’, ‘Harmful’, ‘Neither helpful nor harmful’ or ‘Don’t know’. The list of treatments was compiled from a previous systematic review of complementary and self-help treatments for depression (Jorm, Christensen, Griffiths, & Rodgers, 2002). A similar list of treatments was used to assess knowledge in a previous community-based trial of an Internet treatment for depression (Christensen et al., 2004a). The treatments were divided into the following categories: ‘helping professionals’, ‘medical treatments’, ‘psychological treatments’, and ‘lifestyle or alternative treatments’. The treatments listed under helping professionals were: (1) GPs, (2) counsellors and clinical psychologists, (3) psychiatrists, and (4) family and friends. Three medical treatments were listed: (1) antidepressants, (2) electro-convulsive therapy, and (3) oestrogen. Five psychological treatments were listed: (1) cognitive behaviour therapy, (2) interpersonal psychotherapy, (3) psychodynamic psychotherapy, (4) counselling, and (5) reading self-help books for depression. Twenty-one alternative treatments were listed: (1) St John’s wort, (2) light therapy, (3) acupuncture, (4) exercise, (5) yoga, (6) avoiding caffeine, (7) eating chocolate, (8)
taking fish oils, (9) meditation, (10) massage, (11) aromatherapy, (12) relaxation therapy, (13) dance and movement therapy, (14) listening to music, (15) being with pets, (16) doing more things you enjoy, (17) avoiding sugar, (18) cutting out alcohol, (19) using alcohol, (20) vitamins, and (21) painkillers.

Each evidence-based treatment that was rated as ‘helpful’ received a score of 1, and scores were summed to create a ‘literacy score’ for each treatment type. The maximum score for knowledge of helping professionals was 3 (for nominations of GPs, counsellors and clinical psychologists, and psychiatrists as helpful). Knowledge of medical treatments ranged 0 to 2, with the maximum score indicating that participants rated antidepressants and electroconvulsive therapy as effective. The maximum literacy score for knowledge of psychological treatments was 4 (for nominations of cognitive behaviour therapy, interpersonal psychotherapy, psychodynamic psychotherapy and bibliotherapy as helpful). The maximum score for knowledge of alternative treatments was 3 (for nominations of St John’s Wort, light therapy and exercise as helpful).

3.5.12 Help seeking (use of evidence-based treatments)

Help seeking was assessed by asking participants to indicate which treatments they have used for depression in the past 6 months (at pre-intervention) or past 2 months (at post-intervention, 6 month follow-up, 12 month follow-up). Participants were provided with the same list used to assess their beliefs about treatments. Each evidence-based treatment used received a score of 1, and scores were summed to provide a total help seeking score ranging from 0 to 33, with higher scores indicating greater use of evidence-based treatments.
3.5.13 Stigma

Stigma was assessed using the personal stigma subscale of the Depression Stigma Scale (DSS; Griffiths, Christensen, & Jorm, 2008; Griffiths, Christensen, Jorm, Evans, & Groves, 2004). The DSS is an 18-item scale composed of two 9-item subscales: personal stigma (reflecting the participants’ personal attitudes towards depression) and perceived stigma (reflecting the participants’ beliefs about the attitudes of others towards depression). The DSS is designed to measure stigmatising attitudes towards depression and items reflect the following themes: the status of depression as an illness, the extent to which depression is under personal control, dangerousness, unpredictability, shame, avoidance and discrimination. Example items include: ‘I would not employ someone if I knew they had been depressed’, ‘People with depression are dangerous’, and ‘Depression is a sign of personal weakness’. Items were scored on a 5-point scale ranging from ‘Strongly agree’ to ‘Strongly disagree’, yielding a summed total scale score ranging from 0 to 36, with higher scores indicating higher stigma.

The personal stigma subscale has moderate test-retest reliability (0.71) and moderate to high internal consistency (Cronbach’s alpha coefficient = 0.77 (Griffiths et al., 2008; Griffiths et al., 2004). In the current sample, internal consistency was 0.74 ($N = 151$), and 9 week test-retest reliability was 0.73 ($N = 103$).

3.5.14 Depression literacy

Depression literacy was assessed using 11 items from a 22-item scale developed by Kathy Griffiths for use in a previous community-based Internet intervention trial (Griffiths et al., 2004). Depression literacy refers to the community’s awareness and understanding of depression (Parslow & Jorm, 2002).
The scale was shortened from the original version in an effort to reduce the length of the outcome questionnaires. Based on data from the trial conducted by Griffiths and colleagues (Griffiths et al., 2004), 11 items were selected from the full version of the scale. These were items that (a) showed the highest pre-intervention to post-intervention change in those who received treatment, and (b) best distinguished between treatment and control participants at post-intervention. Items that were either extremely frequently or infrequently endorsed were excluded. Participants were provided with the final 11 statements relating to depression and asked to rate them as either ‘True’, ‘False’ or ‘Don’t know’. Example statements included: ‘Reckless and foolhardy behaviour is a common sign of depression’ (False) and ‘Antidepressants are addictive’ (False). Correct responses received a score of 1, and incorrect or don’t know responses received a score of 0. Scores were summed to provide a total depression literacy score ranging from 0 to 11, with higher scores indicating higher depression literacy.

3.5.15 Cognitive behaviour therapy literacy

Knowledge of the principles of cognitive behaviour therapy was assessed using 10 items from an 18-item scale developed for use in a previous community-based Internet intervention trial (Christensen et al., 2004a). The subset of items was chosen using the same method described above for depression literacy. The first two items assessed participants’ beliefs and self-reported knowledge of cognitive behaviour therapy. The first question: ‘How much do you think depression can be helped by making changes to the way you think?’ was rated on a 5-point scale: ‘Not at all’, ‘A little bit’, ‘Somewhat’, ‘Quite a bit’, and ‘A lot’. The second question: ‘How much do you know about cognitive behaviour therapy?’ was rated on a 4-point scale:
‘A lot’, ‘Quite a lot’, ‘Not very much’, and ‘Almost nothing’. The remaining eight items were statements about cognitive behaviour therapy that participants were asked to rate as either ‘True’, ‘False’ or ‘Don’t know’. Example statements included: ‘I should automatically believe my thoughts because they will more often than not be accurate’ (False) and ‘The statement ‘I’m a stupid idiot’ is an example of labelling’ (True). Correct responses received a score of 1, and incorrect or don’t know responses received a score of 0. Scores from the eight items were summed to provide a total cognitive behaviour literacy score ranging from 0 to 8, with higher scores indicating higher cognitive behaviour therapy literacy.

3.5.16 Lifeline use

Frequency of participants’ use of Lifeline’s telephone counselling service during their involvement in the trial was measured using a single item: ‘How many times have you called Lifeline in the past month?’ Responses were recorded using the following categories: ‘None’, ‘1 time’, ‘2 times’, ‘About 3-10 times’, ‘About 11-19 times’, and ‘About 20 or more times’.

3.5.17 Condition preference

Trial condition preference was measured at pre-intervention using a single item asking participants to indicate which condition would be of most interest to them. Participants were asked: ‘Please indicate which one of the following four activities would interest you most: (1) Visit websites designed to provide information and teach skills for preventing depression, (2) Visit websites designed to provide information and teach skills for preventing depression and receive a weekly phone call to talk about your progress, (3) Receive a weekly phone call to talk about lifestyle and
environmental factors that could increase your risk of depression, or (4) Receive the website program described in (1) above to start in about 6 months time’.

3.5.18 Intervention completion and satisfaction

Participants who were allocated to receive the Internet intervention were asked a series of questions (developed for previous studies by Kathy Griffiths) to gauge how much of the intervention they completed, and how useful they found it. Participants were asked: (1) ‘How much of the website did you read?’: ‘None of it’, ‘Part of it’, ‘Most of it’, ‘Almost all of it’, (2) ‘How easy were the websites to understand?’: ‘Very easy’, ‘Easy’, ‘Neither easy nor difficult’, ‘Difficult’, ‘Very difficult’, (3) ‘Did you learn much from the websites?’: ‘A great deal’, ‘A fair bit’, ‘Not very much’, ‘Almost nothing’, and (4) ‘How useful were the websites?’: ‘Very useful’, ‘Useful’, ‘Not very useful’, ‘Not at all useful’.

Participants were asked: ‘Have you done anything differently because of the BluePages website?’: ‘Yes’, ‘No’, or ‘Not sure’, ‘If yes, what have you done?’ (tick one or more of the following responses): ‘Sought more information’, ‘Tried a self-help treatment’, ‘Sought help from a health professional’, ‘Given advice about depression to someone else’, or ‘Other’.

Participants were also asked the following questions to further assess their satisfaction with the intervention: (1) ‘Do you think you will use these websites in the future?’: ‘Yes’, ‘No’, or ‘Not sure’, (2) ‘Did the websites include what you wanted to know about depression and the options for treating it?’: ‘Yes’, ‘Mostly’, ‘Only partly’, ‘No’, (3) ‘How much do you think the writers of the sites know about depression and options for treating it?’: ‘A great deal’, ‘A fair bit’, ‘Not very much’, ‘Almost
nothing’, and (4) ‘Would you recommend these websites to others?’: ‘Yes, definitely’, ‘Probably’, ‘Probably not’, or ‘Definitely not’.

3.5.19 Intervention adherence

Adherence data were directly downloaded from the administration interface for the intervention websites, BluePages and MoodGYM. For the first part of the intervention (BluePages), the following data were collected and downloaded: total number of visits to the site, and average length of visit (minutes). The following completion data was collected for MoodGYM: number of modules completed (ranging from 0 to 5).

3.5.20 Telephone counsellor feedback survey

Following their involvement in the recruitment phase of the trial, telephone counsellors were asked to complete a survey to measure the factors relating to reluctance to invite callers to participate in the trial. Telephone counsellors were provided with a list of 14 reasons for not inviting a caller to participate in the study and asked to what degree each statement applied to them using one of five possible response categories: ‘Applied none of the time’, ‘Applied a little of the time’, ‘Applied some of the time’, ‘Applied most of the time’ or ‘Applied all of the time’. Examples of survey items included: ‘I forgot to ask the caller’, ‘I felt that asking the questions would negatively affect the relationship between me and the caller’, and ‘I did not feel that the callers I spoke to were appropriate for an invitation’. See Appendix 22 for a copy of the telephone counsellor feedback survey.
3.6 Intervention and trial conditions

3.6.1 Intervention

The trial intervention involved participants visiting two websites over a period of six weeks: BluePages and MoodGYM.

BluePages (http://bluepages.anu.edu.au/) is a freely accessible, psychoeducational website that contains information and resources related to depression. Information on the website is divided into the following sections: Symptoms, Treatments, and Help and Resources. The website also contains a link to MoodGYM, an online depression prevention program, access to a specialised search engine that allows users to search a large number of Australian and international depression websites, screening tests for depression and anxiety, and a link to BlueBoard, a supportive, online bulletin board for people suffering from depression. The ‘symptoms’ section of the website contains personal accounts of the experience of depression, the major symptoms of depression, how depression is diagnosed, and depression and anxiety screening tests. The ‘treatments’ section of the website describes various medical, psychological and alternative treatments for depression. This section contains information on how these treatments work, how they can be accessed and the evidence for their effectiveness. Treatment effectiveness ratings are based on the amount and quality of the research studies that have examined each treatment. These ratings are informed by ongoing systematic reviews of the depression treatment literature.

The MoodGYM program (http://moodgym.anu.edu.au/) is a free to end-user, online cognitive behaviour therapy program for depression. The program is divided into 5 modules designed to be completed sequentially. Each module focuses on a particular aspect of cognitive behaviour therapy, such as cognitive restructuring, the
relationship between thoughts and feelings, behavioural activation, relaxation, and problem solving. Each MoodGYM module takes between 20 and 40 minutes to complete and contains written information, animations, interactive exercises and quizzes. The program also contains a workbook in which users can record their responses to quizzes and exercises and track their progress through the program. At the beginning of the program, users are introduced to a cast of characters who feature in the program and exemplify the major concepts in each module.

The Feelings module is the first module in the program. In this module, users are introduced to the relationship between thoughts and emotions, and in particular, how negative thoughts can lead to feelings of unhappiness. Users are guided through exercises to help them to learn to recognise and identify negative thoughts. Another aim of the Feelings module is to introduce the concept 'What You Think Is What You Feel'. According to this concept, events trigger thoughts which in turn, produce certain feelings, which may lead to certain behaviours.

The Thoughts module is the second MoodGYM module, which introduces the basic elements of cognitive restructuring. In this module, users are introduced to common errors in thinking (termed 'Warpy Thoughts') and strategies to contest these negative thinking patterns. The module is also aimed at improving self-esteem and targeting common areas of vulnerability for people who experience depression, such as the need for approval, perfectionism and the need to be loved.

The Un-Warping module is the third module of MoodGYM, and consolidates the concepts introduced in the first two modules by examining them in more depth. Users are introduced to additional strategies for restructuring negative thoughts, and applying these techniques to a wider range of emotions such as anger and anxiety. Improving self-esteem is also addressed through the introduction of the behavioural strategy pleasant events scheduling.
The De-stressing module is the fourth MoodGYM module, and is designed to teach strategies to help users identify stressful situations or events that are likely to precipitate ‘warpy’ thinking. In this module, users also learn how to manage these situations more effectively. Users are introduced to basic relaxation techniques, including progressive muscle relaxation, meditation and music-based relaxation. The module includes downloadable relaxation exercises.

The Relationships module is the fifth and final MoodGYM module, and teaches basic problem solving skills. The module introduces problem solving using the example of a relationship breakup. Users are also introduced to a five-step problem solving strategy that involves (1) identifying the problem, (2) generating options, (3) evaluating the options, (4) selecting the best option and (5) putting the option into practice.

Upon completion of the program, users are provided with a certificate and are declared ‘certified unwarped’. At the completion of each module, users are also provided with a summary of the key concepts contained in the module, and any changes in self-reported depression and anxiety scores. These summaries are stored in the user’s online workbook for future reference. Throughout the program, users are encouraged to apply and practice the skills learned in their own lives outside the program.

Sections 3.6.2 – 3.6.5 below outline how participants in each trial condition completed the intervention period.

3.6.2 Internet only condition

Participants randomised to the Internet only condition were mailed an instruction manual for completion of the six week intervention. A copy of the manual
is provided in Appendix 23. One week after participants were mailed their manual, they were telephoned for the purpose of explaining the manual and answering any questions prior to the start of the intervention period. Participants were then advised to complete the six week intervention independently. As shown in Table 3.7, participants in the Internet only condition were directed to complete BluePages in week 1 and MoodGYM in weeks 2 to 6. Participants received a final telephone call at the end of the 6 week period. See Appendix 24 for a copy of the scripts used to make calls to participants. Participants did not receive any further contact from trial staff during the intervention period. However, participants were provided with an e-mail address to contact trial staff in the event of any technical difficulties with the program.

3.6.3 Internet plus tracking condition

Participants randomised to the Internet plus tracking condition were mailed the same intervention manual provided to those in the Internet only condition, and were instructed to complete the intervention over the six week intervention period. As for the Internet only condition, participants were directed to complete BluePages in week 1 and MoodGYM in weeks 2 to 6. However, in addition to this and a telephone call at the beginning and end of the intervention period, participants in this condition received a telephone call during each week of the intervention period. The purpose of the weekly telephone call was to encourage adherence to the intervention and to assist participants in their understanding of the intervention content. Calls were not intended to provide any form of supportive counselling, and staff who provided the telephone call followed a script. See Appendix 25 for a copy of the telephone scripts for the Internet plus tracking condition. Weekly telephone calls were approximately ten minutes in length.
3.6.4 Tracking only condition

Participants randomised to the tracking only condition did not complete the Internet intervention. Participants in this condition received a weekly telephone call which was matched for duration with the telephone calls received by participants in the Internet plus tracking condition. Each week, participants were asked to discuss a different lifestyle topic that may be related to depression. These topics included: regular activities, education, social and family relationships, career and work relationships, physical health and nutrition. See Appendix 26 for a copy of the telephone scripts for the tracking only condition.

3.6.5 Control condition

Participants randomised to the control condition neither completed the Internet intervention nor received weekly telephone calls. Participants in this condition accessed Lifeline telephone counselling as usual, as did participants in all conditions. Participants were wait-listed to receive the Internet only intervention following completion of the 6 month follow-up, if they wished to do so. Following receipt of their 6 month follow-up survey, participants were telephoned to discuss completion of the intervention. See Appendix 27 for a copy of the telephone scripts for the control condition. Those who wished to complete the intervention were provided with the same intervention materials and telephone contact as those in the Internet only condition. No further data was collected from these participants beyond the 6-month follow-up.
Table 3.7 Intervention period tasks by trial condition

<table>
<thead>
<tr>
<th>Week</th>
<th>Internet only</th>
<th>Internet plus tracking</th>
<th>Tracking only</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All participants receive telephone call to commence intervention period</td>
<td>BluePages + 10 minute phone call</td>
<td>10 minute phone call (regular activities)</td>
<td>No Internet No tracking</td>
</tr>
<tr>
<td>Week 1</td>
<td>BluePages</td>
<td>BluePages + 10 minute phone call</td>
<td>10 minute phone call (education)</td>
<td>No Internet No tracking</td>
</tr>
<tr>
<td>Week 2</td>
<td>MoodGYM Module 1</td>
<td>MoodGYM Module 1 + 10 minute phone call</td>
<td>10 minute phone call (education)</td>
<td>No Internet No tracking</td>
</tr>
<tr>
<td>Week 3</td>
<td>MoodGYM Module 2</td>
<td>MoodGYM Module 2 + 10 minute phone call</td>
<td>10 minute phone call (social and family relationships)</td>
<td>No Internet No tracking</td>
</tr>
<tr>
<td>Week 4</td>
<td>MoodGYM Module 3</td>
<td>MoodGYM Module 3 + 10 minute phone call</td>
<td>10 minute phone call (career and work relationships)</td>
<td>No Internet No tracking</td>
</tr>
<tr>
<td>Week 5</td>
<td>MoodGYM Module 4</td>
<td>MoodGYM Module 4 + 10 minute phone call</td>
<td>10 minute phone call (physical health)</td>
<td>No Internet No tracking</td>
</tr>
<tr>
<td>Week 6</td>
<td>MoodGYM Module 5</td>
<td>MoodGYM Module 2 + 10 minute phone call</td>
<td>10 minute phone call (nutrition)</td>
<td>No Internet No tracking</td>
</tr>
</tbody>
</table>

Note: Participants in all conditions received Lifeline telephone counselling as usual during their involvement in the study.

3.7 Statistical analysis

3.7.1 Power calculations

The initial target sample size was 400 participants (100 participants per condition), enabling the detection of effects below 0.3 sd comparing treatment arms, with 80% power and $\alpha = 0.05$. This sample size was motivated by the desire to evaluate the augmentation of the Internet intervention with telephone tracking, a difference which was not expected to be as large as for the Internet intervention alone. However, the slow rate of recruitment prompted reconsideration of the target sample size. The achieved sample size of 155 participants maintained power above 80% to detect differences between treatment arms of 0.5 sd.
3.7.2 Data inspection

Data were inspected prior to analysis to check for accuracy of data entry, the presence of outliers, and to investigate distributions on variables. To assess for mistakes in data entry, items on each outcome measure were scanned for invalid values, and values found to be out of the valid range were checked for accuracy and re-entered correctly. Scattergrams were used to plot pre- and post-intervention scores on the primary outcome variables to visually examine group differences and detect temporal outliers.

3.7.3 Missingness and pre-intervention differences

Missingness was defined as failure to complete an assessment questionnaire at post-intervention, 6 month follow-up or 12 month follow-up. Logistic regression analyses were used to identify significant predictors of missingness at each measurement occasion. Data for missingness were coded as follows: 0 (not missing) and 1 (missing). Separate analyses were conducted for each measurement occasion, using the following predictors: pre-intervention levels of depression symptoms, pre-intervention levels of anxiety symptoms, intervention condition, age, and sex.

Univariate analysis of variance was used to examine differences between conditions at pre-intervention on the following continuous variables: psychological distress (K10), age, total years of education, depression symptoms, anxiety symptoms, dysfunctional thinking, quality of life, hazardous alcohol use, suicidal ideation, stigma, depression literacy, cognitive behaviour therapy literacy, and knowledge of helping professionals, knowledge of medical treatments, knowledge of psychological treatments and knowledge of alternative treatments. Chi-square analyses were used to assess differences between conditions at pre-intervention on the following categorical
variables: sex, relationship status, employment status, previous experience of a depressive episode, previous help seeking for a depressive episode, and previous experience of panic, social phobia or specific phobia.

3.7.4 Primary and secondary outcomes

The effect of the intervention on primary and continuous secondary outcome variables over time was examined using Mixed Models Repeated Measures Analysis of Variance, with measurement occasion as a within groups factor and intervention condition as a between groups factor. All primary and secondary outcomes were analysed using an intention to treat (ITT) approach. Mixed models ANOVA offers various advantages over traditional Repeated Measures Analysis of Variance (RM ANOVA) approaches (Gueorguieva & Krystal, 2004; Nich & Carroll, 1997). As with many longitudinal trials, participant dropout is common, and the exclusion of participants with missing data at any stage of the trial can lead to bias, undermine power, and can impact on the generalisability of the results. Imputing missing values is also potentially problematic, as it can increase the risk of type I error by reducing error variance and artificially increasing degrees of freedom.

Unlike RM ANOVA, which typically requires that all participants have complete follow-up data, mixed modelling allows the use of all available data for each participant by using model parameter estimates to fit a regression line that estimates missing observations. Traditional ANOVA approaches are less flexible with respect to variance across time points, and largely assume that this is constant, when in fact, measurements at time points that occur closer together will be more highly correlated than those that occur farther apart. Random effects models do not require a balanced design but allow each participant a unique set of data points, which is useful when
there are unequal numbers of participants in each condition. An unstructured
covariance matrix was chosen to model the data given goodness of fit. Patterns of
difference between conditions at each measurement occasion were examined using
planned contrasts. For each outcome variable, contrasts were conducted between all
conditions to assess for group differences at each measurement occasion. Effect size
estimates were calculated by dividing the mean difference between conditions at post-
intervention, 6 month follow-up, and 12 month follow-up by the pooled standard
deviation of the groups.

For dichotomous secondary outcome variables, logistic regression analyses
were used to examine if treatment condition was a significant predictor of the
presence or absence of the observed outcome.

3.7.5 Caseness

Proportions of participants in each intervention condition who met the criteria
for clinical depression caseness on the CES-D were examined. Logistic regression
analyses were used to assess the likelihood of participants in each condition (relative
to the control condition) being classified as a clinical case at post-intervention, 6
month follow-up and 12 month follow-up. The numbers needed to treat (NTT) were
calculated for participants above caseness criteria at pre-intervention, with 95%
confidence intervals estimated with the method proposed by Bender (Bender, 2001).

3.7.6 Additional analyses

Logistic regression analyses were used to examine the association between
treatment condition and Lifeline use at post-intervention, 6 month follow-up and 12
month follow-up. Lifeline use (described in Section 3.5.16) was dichotomised into
the following categories: ‘minimal Lifeline use’ (no calls or 1-2 calls) and ‘frequent Lifeline use’ (3 or more calls). The likelihood of participants in each condition being a ‘frequent’ user of Lifeline was examined at post-intervention, 6 month follow-up and 12 month follow-up. In addition to reporting the descriptive results obtained from the telephone counsellor feedback survey (Section 3.5.22), a series of logistic regression analyses were used to examine predictors of endorsement of reasons for not inviting callers to participate in the trial.
CHAPTER 4 – THE ECCO TRIAL: RESULTS

4.1 Overview

This chapter documents the outcomes of the randomised controlled trial. Information relating to data cleaning, predictors of missingness, and pre-intervention differences between trial conditions are presented in Sections 4.2, 4.3 and 4.4 respectively. Section 4.5 contains analyses investigating the effectiveness of the intervention for the primary outcome variables (depression and anxiety symptoms), including caseness analyses for depression, and effect size calculations for depression and anxiety. Findings for the analyses of the secondary outcome variables are presented in Section 4.6. Section 4.7 examines rates of adherence to the intervention. Section 4.8 outlines participant feedback and satisfaction with the intervention, as well as rates of Lifeline use during the intervention. Finally, section 4.9 presents results from the telephone counsellor feedback survey.

4.2 Data inspection and preparation for analysis

4.2.1 Data cleaning and scale computation

Prior to analysis, raw data were inspected for errors introduced during data entry and invalid responses were corrected. In cases where participants ticked more than one response to a question, the following decisions were made: (i) the stronger response (i.e. ‘strongly agree’ as opposed to ‘agree’) was chosen where two adjacent or similar responses were ticked, (ii) the response was coded as missing where two non-adjacent or contradictory responses were ticked, and (iii) the middle response was chosen where three adjacent responses were ticked.
Total scale scores were computed for all continuous primary and secondary outcome measures. Scores for a scale were not computed when 20% or more of the items comprising the scale were missing. For cases with fewer than 20% missing items, pro-rating was used to compute a full scale score by taking the average of the completed items and multiplying that number by the total number of items in the scale.

4.2.2 Data exploration

Scattergrams of pre-intervention versus post-intervention scores for the primary outcome variables (depression and anxiety symptoms) were used to visually examine group differences and detect temporal outliers (individuals with valid scores at each occasion but unusual patterns of change). Using this method, two cases in the Internet plus tracking condition showed aberrant patterns of change, each having moderate CES-D scores at pre-intervention and extremely severe scores at post-intervention. In one case, this pattern of results was linked to a participant who reported to the research staff that they had received a diagnosis of a life-threatening illness during the intervention period. Outlying cases such as these can seriously bias or influence estimates, due to the distortion of error variance and the violation of assumptions of normality. For these reasons, various methods have been proposed to manage data with outlying cases. Deletion of outlying cases may enhance the accuracy of statistical estimates and reduce errors of inference. However, the deletion of cases from analysis post-randomisation threatens the representativeness of the data and may lead to inflated estimates of treatment effect. Data transformation techniques and robust analysis methods have been developed to analyse data containing influential outliers (Wilcox, 2009). However, procedures that simultaneously address the issues of repeated measurements, outliers, and missing data are unavailable, and
the use of robust techniques is not yet widely accepted. As a result, it was decided to conduct and report analyses both including and excluding the outlying cases from the data.

4.3 Participation rates and missingness

Figure 4.1 shows the flow of participants through the trial. 3143 callers were invited to participate in the trial during the recruitment period. Of these, 910 (28.9%) agreed to be screened for eligibility. At screening, 142 (15.6%) were unable to be contacted, 61 (6.7%) were unwilling to participate, and 337 (37.0%) did not meet eligibility criteria. The most common reasons for ineligibility were: a score of <22 on the K-10 (n = 138, 40.9%), a diagnosis of schizophrenia or bipolar disorder (n = 89, 26.4%), and no Internet access (n = 67, 19.9%). 370 people were eligible for inclusion in the trial, and of these, 155 completed informed consent procedures and pre-intervention assessments, and were randomised to trial conditions, resulting in a 42% acceptance rate. 107 (69%) participants completed the post-intervention survey, 92 (59%) completed the 6 month follow-up survey and 57 (37%) completed the 12 month follow-up survey.
Invited to participate via crisis line (n = 3143)

- Refused to participate (n = 909)
- Invited in a previous call (n = 416)
- No Internet access (n = 742)
- Refused to provide contact details (n = 166)

Screened for eligibility (n = 910)

- Unable to be contacted (n = 142)
- Unwilling to participate (n = 61)
- Did not meet eligibility criteria (n=337)
  - No internet (n = 67)
  - Under age 18 (n = 2)
  - Psychosis or Bipolar (n = 89)
  - Currently receiving CBT (n = 40)
  - Reading impairment (n = 1)
  - Below K-10 cut-off (n = 138)

Recruited and sent consent form and survey (n = 370)

Failed to return surveys and consent forms (n = 215)

Enrolled and randomised (n = 155)

- **Internet only**
  - Completed baseline survey (n = 38)
    - Completed post-intervention survey (n = 27, 71.1%)
    - Completed 6 month follow-up (n = 23, 60.5%)
    - Completed 12 month follow-up (n = 21, 55.3%)

- **Internet + tracking**
  - Completed baseline survey (n = 45)
    - Completed post-intervention survey (n = 20, 44.4%)
    - Completed 6 month follow-up (n = 20, 44.4%)
    - Completed 12 month follow-up (n = 14, 31.1%)

- **Tracking only**
  - Completed baseline survey (n = 37)
    - Completed post-intervention survey (n = 33, 89.2%)
    - Completed 6 month follow-up (n = 27, 72.9%)
    - Completed 12 month follow-up (n = 22, 59.5%)

- **Control**
  - Completed baseline survey (n = 35)
    - Completed post-intervention survey (n = 27, 77.1%)
    - Completed 6 month follow-up (n = 22, 62.9%)
    - No 12 month follow-up conducted

**Figure 4.1** Flow of participants through the trial
Logistic regressions were used to investigate predictors of missingness (failure to complete a questionnaire) at post-intervention, 6 month follow-up and 12 month follow-up. Initial models examined each predictor separately. Then, all predictors (except for number of MoodGYM modules completed) were entered simultaneously to determine if the overlap between the combined predictors produced divergent findings. The results of the univariate models were consistent with the final combined model into which all predictors were entered simultaneously. A separate regression analysis was conducted with participants allocated to the Internet only and Internet plus tracking conditions to examine the effect of number of MoodGYM modules completed on missingness. Table 4.1 shows the results of the combined logistic regression examining predictors of missingness at post-intervention. The result of the univariate analysis for number of MoodGYM modules completed is also presented in the table, separated from the other results by a double line.
<table>
<thead>
<tr>
<th>Predictor</th>
<th>Odds ratio</th>
<th>P value</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention condition (Internet only)</td>
<td>1.40</td>
<td>.56</td>
<td>.46</td>
<td>4.26</td>
</tr>
<tr>
<td>Intervention condition (Internet plus tracking)</td>
<td>6.46</td>
<td>.002</td>
<td>2.01</td>
<td>20.77</td>
</tr>
<tr>
<td>Intervention condition (Tracking only)</td>
<td>.48</td>
<td>.30</td>
<td>.12</td>
<td>1.89</td>
</tr>
<tr>
<td>Pre-intervention psychological distress</td>
<td>1.04</td>
<td>.34</td>
<td>.96</td>
<td>1.13</td>
</tr>
<tr>
<td>Sex (Male)</td>
<td>1.35</td>
<td>.57</td>
<td>.48</td>
<td>3.82</td>
</tr>
<tr>
<td>Age</td>
<td>.98</td>
<td>.15</td>
<td>.94</td>
<td>1.10</td>
</tr>
<tr>
<td>Pre-intervention depression</td>
<td>1.03</td>
<td>.34</td>
<td>.97</td>
<td>1.08</td>
</tr>
<tr>
<td>Pre-intervention anxiety</td>
<td>.97</td>
<td>.43</td>
<td>.91</td>
<td>1.04</td>
</tr>
<tr>
<td>Allocated to preferred treatment condition (No)</td>
<td>2.45</td>
<td>.10</td>
<td>.85</td>
<td>7.08</td>
</tr>
<tr>
<td>Number of MoodGYM modules completed</td>
<td>.49</td>
<td>&lt;.001</td>
<td>.35</td>
<td>.69</td>
</tr>
</tbody>
</table>

Trial condition and number of MoodGYM modules completed were significant predictors of missingness at post-intervention. The odds of missingness at post-intervention were greater for participants in the Internet plus tracking condition, relative to participants in the control condition. Those who completed less MoodGYM modules also had greater odds of missingness at post-intervention.

Table 4.2 shows the results of the logistic regression examining predictors of missingness at 6 month follow-up. Those who completed less modules of MoodGYM had greater odds of missingness at 6 month follow-up.
Table 4.2 Predictors of missingness at 6 month follow-up

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Odds ratio</th>
<th>P value</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention condition (Internet only)</td>
<td>1.20</td>
<td>.73</td>
<td>.44</td>
<td>3.26</td>
</tr>
<tr>
<td>Intervention condition (Internet plus tracking)</td>
<td>2.24</td>
<td>.13</td>
<td>.78</td>
<td>6.30</td>
</tr>
<tr>
<td>Intervention condition (Tracking only)</td>
<td>.70</td>
<td>.51</td>
<td>.24</td>
<td>2.03</td>
</tr>
<tr>
<td>Pre-intervention psychological distress</td>
<td>1.04</td>
<td>.35</td>
<td>.96</td>
<td>1.11</td>
</tr>
<tr>
<td>Sex (Male)</td>
<td>1.77</td>
<td>.22</td>
<td>.72</td>
<td>4.37</td>
</tr>
<tr>
<td>Age</td>
<td>.99</td>
<td>.46</td>
<td>.96</td>
<td>1.02</td>
</tr>
<tr>
<td>Pre-intervention depression</td>
<td>1.01</td>
<td>.61</td>
<td>.97</td>
<td>1.06</td>
</tr>
<tr>
<td>Pre-intervention anxiety</td>
<td>.97</td>
<td>.32</td>
<td>.92</td>
<td>1.03</td>
</tr>
<tr>
<td>Allocation to preferred treatment condition (No)</td>
<td>1.08</td>
<td>.87</td>
<td>.45</td>
<td>2.57</td>
</tr>
<tr>
<td>Number of MoodGYM modules completed</td>
<td>.56</td>
<td>&lt;.001</td>
<td>.41</td>
<td>.75</td>
</tr>
</tbody>
</table>

Table 4.3 shows the results of the logistic regression examining predictors of missingness at 12 month follow-up. Those allocated to the Internet plus tracking condition were less likely to complete a 12 month assessment compared to participants in the tracking only condition. Those who completed less MoodGYM modules, those with higher levels of pre-intervention psychological distress, and those with lower pre-intervention anxiety symptoms were also less likely to complete an assessment at 12 months.
Table 4.3 Predictors of missingness at 12 month follow-up

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Odds ratio</th>
<th>P value</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention condition (Internet only)</td>
<td>1.37</td>
<td>.54</td>
<td>.50</td>
<td>3.78</td>
</tr>
<tr>
<td>Intervention condition (Internet plus tracking)</td>
<td>3.70</td>
<td>.01</td>
<td>1.36</td>
<td>10.03</td>
</tr>
<tr>
<td>Pre-intervention psychological distress</td>
<td>1.10</td>
<td>.04</td>
<td>1.01</td>
<td>1.20</td>
</tr>
<tr>
<td>Sex (Male)</td>
<td>.98</td>
<td>.97</td>
<td>.34</td>
<td>2.85</td>
</tr>
<tr>
<td>Age</td>
<td>1.01</td>
<td>.65</td>
<td>.97</td>
<td>1.04</td>
</tr>
<tr>
<td>Pre-intervention depression</td>
<td>1.04</td>
<td>.11</td>
<td>.99</td>
<td>1.10</td>
</tr>
<tr>
<td>Pre-intervention anxiety</td>
<td>.93</td>
<td>.03</td>
<td>.87</td>
<td>.99</td>
</tr>
<tr>
<td>Allocation to preferred treatment condition (No)</td>
<td>.88</td>
<td>.78</td>
<td>.36</td>
<td>2.14</td>
</tr>
<tr>
<td>Number of MoodGYM modules completed</td>
<td>.66</td>
<td>.001</td>
<td>.51</td>
<td>.85</td>
</tr>
</tbody>
</table>

4.4 Pre-intervention comparisons

Table 4.4 contains observed means for each trial condition on all primary and secondary outcome variables at pre-intervention, post-intervention, 6 month follow-up and 12 month follow-up. At pre-intervention, no significant differences were found between participants in each condition on any screening or pre-intervention variables.

No significant differences were found between conditions in terms of psychological distress \(F(3,151) = .72, p = .54\), age \(F(3,151) = 2.05, p = .11\), total years of education \(F(3,146) = .80, p = .50\), pre-intervention depression \(F(3,148) = 1.48, p = .22\), pre-intervention anxiety \(F(3,150) = .66, p = .58\), pre-intervention dysfunctional thinking \(F(3,149) = 1.10, p = .35\), pre-intervention quality of life \(F(3,151) = .10, p = .96\), pre-intervention hazardous alcohol use \(F(3,103) = .55, p = .65\), pre-intervention suicidal ideation \(F(3,149) = .77, p = .52\), pre-intervention stigma \(F(3,147) = 1.21, p = .31\), pre-intervention beliefs about Internet treatments \(F(3,149) = 2.33, p = .08\), pre-intervention depression literacy \(F(3,147) = .98, p = .40\), pre-intervention cognitive behaviour therapy literacy \(F(3,144) = 1.41, p = .35\).
pre-intervention knowledge of helping professionals ($F(3,148) = 1.42, p = .24$), pre-intervention knowledge of medical treatments ($F(3,147) = .68, p = .57$), pre-intervention knowledge of psychological treatments ($F(3,143) = 1.19, p = .32$), and pre-intervention knowledge of alternative treatments ($F(3,146) = .17, p = .92$).

Further, no significant differences were found between conditions at pre-intervention on the following categorical variables: sex ($\chi^2(3) = 1.03, p = .80$), relationship status ($\chi^2(15) = 23.21, p = .08$), employment status ($\chi^2(12) = 7.40, p = .83$), previous experience of a depressive episode ($\chi^2(3) = 3.18, p = .37$), previous help seeking for a depressive episode ($\chi^2(3) = 2.23, p = .53$), previous experience of a panic attack ($\chi^2(3) = 2.89, p = .41$), previous experience of social phobia ($\chi^2(3) = 3.31, p = .35$), and previous experience of specific phobia ($\chi^2(3) = .89, p = .83$).
Table 4.4 Means and (standard deviations) for primary and secondary outcome measures at pre-intervention, post-intervention, 6 month follow-up and 12 month follow-up

<table>
<thead>
<tr>
<th></th>
<th>Measurement occasion</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-intervention</td>
<td>Post-intervention</td>
<td>6 month</td>
<td>12 month</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>follow-up</td>
<td>follow-up</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>Mean (SD)</td>
<td>n</td>
<td>Mean (SD)</td>
<td>n</td>
</tr>
<tr>
<td>Depression - Centre for Epidemiological Studies Depression Scale (CES-D)</td>
<td></td>
<td>38</td>
<td>34.97 (10.76)</td>
<td>27</td>
<td>24.41 (13.62)</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>43</td>
<td>34.40 (10.15)</td>
<td>20</td>
<td>24.25 (15.46)</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36</td>
<td>37.56 (10.73)</td>
<td>33</td>
<td>29.58 (13.15)</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35</td>
<td>38.57 (8.85)</td>
<td>27</td>
<td>35.15 (13.90)</td>
<td>22</td>
</tr>
<tr>
<td>Anxiety - Anxiety scale from the Depression, Anxiety and Stress Scales (DASS)</td>
<td></td>
<td>38</td>
<td>12.82 (8.40)</td>
<td>27</td>
<td>8.22 (8.71)</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>45</td>
<td>12.69 (6.41)</td>
<td>20</td>
<td>10.55 (9.85)</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>37</td>
<td>13.14 (9.73)</td>
<td>33</td>
<td>10.73 (9.68)</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34</td>
<td>15.03 (7.59)</td>
<td>27</td>
<td>16.22 (11.08)</td>
<td>22</td>
</tr>
<tr>
<td>Dysfunctional thinking - Automatic Thoughts Questionnaire (ATQ)</td>
<td></td>
<td>38</td>
<td>18.05 (8.87)</td>
<td>27</td>
<td>10.26 (8.00)</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>45</td>
<td>17.00 (7.47)</td>
<td>18</td>
<td>11.17 (9.34)</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>37</td>
<td>18.62 (8.06)</td>
<td>33</td>
<td>14.64 (7.58)</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33</td>
<td>20.24 (7.08)</td>
<td>27</td>
<td>18.30 (8.99)</td>
<td>22</td>
</tr>
<tr>
<td>Quality of life – EUROHIS-8</td>
<td></td>
<td>38</td>
<td>12.24 (5.72)</td>
<td>27</td>
<td>16.70 (6.83)</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>45</td>
<td>12.42 (5.22)</td>
<td>17</td>
<td>14.71 (6.75)</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>37</td>
<td>12.73 (6.64)</td>
<td>33</td>
<td>14.06 (6.28)</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35</td>
<td>12.06 (4.81)</td>
<td>27</td>
<td>11.56 (5.91)</td>
<td>22</td>
</tr>
<tr>
<td>Hazardous alcohol use – Alcohol Use Disorders Identification Test (AUDIT)</td>
<td></td>
<td>38</td>
<td>4.53 (5.37)</td>
<td>27</td>
<td>2.78 (4.12)</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>45</td>
<td>4.73 (5.76)</td>
<td>17</td>
<td>2.35 (3.10)</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36</td>
<td>3.81 (4.57)</td>
<td>31</td>
<td>3.90 (4.31)</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34</td>
<td>3.09 (4.27)</td>
<td>24</td>
<td>3.92 (5.63)</td>
<td>21</td>
</tr>
<tr>
<td>Suicidal ideation – (4 items from GHQ-28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

133
<table>
<thead>
<tr>
<th></th>
<th>Measurement occasion</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-intervention</td>
<td>Post-intervention</td>
<td>6 month follow-up</td>
<td>12 month follow-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>Mean (SD)</td>
<td>n</td>
<td>Mean (SD)</td>
<td>n</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Internet only</td>
<td>37</td>
<td>1.54 (1.69)</td>
<td>27</td>
<td>1.04 (1.53)</td>
<td>23</td>
<td>0.78 (1.31)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>45</td>
<td>1.67 (1.68)</td>
<td>20</td>
<td>1.25 (1.71)</td>
<td>20</td>
<td>1.00 (1.62)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>36</td>
<td>1.64 (1.68)</td>
<td>32</td>
<td>0.66 (1.23)</td>
<td>27</td>
<td>0.89 (1.53)</td>
</tr>
<tr>
<td>Control</td>
<td>35</td>
<td>2.09 (1.52)</td>
<td>27</td>
<td>1.19 (1.39)</td>
<td>21</td>
<td>1.33 (1.74)</td>
</tr>
<tr>
<td>Beliefs about Internet treatments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>38</td>
<td>5.58 (1.69)</td>
<td>27</td>
<td>6.04 (1.43)</td>
<td>22</td>
<td>5.86 (1.83)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>44</td>
<td>4.73 (1.69)</td>
<td>20</td>
<td>6.45 (1.28)</td>
<td>20</td>
<td>6.20 (1.24)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>37</td>
<td>5.54 (1.50)</td>
<td>32</td>
<td>5.16 (1.78)</td>
<td>27</td>
<td>5.26 (1.63)</td>
</tr>
<tr>
<td>Control</td>
<td>34</td>
<td>5.09 (1.88)</td>
<td>27</td>
<td>5.19 (1.30)</td>
<td>21</td>
<td>4.57 (1.89)</td>
</tr>
<tr>
<td>Knowledge of helping professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>37</td>
<td>2.16 (0.90)</td>
<td>27</td>
<td>2.22 (0.97)</td>
<td>23</td>
<td>2.48 (0.73)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>43</td>
<td>1.93 (1.03)</td>
<td>20</td>
<td>2.10 (1.29)</td>
<td>19</td>
<td>2.47 (0.84)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>37</td>
<td>1.73 (0.99)</td>
<td>32</td>
<td>1.63 (1.01)</td>
<td>27</td>
<td>1.85 (0.99)</td>
</tr>
<tr>
<td>Control</td>
<td>35</td>
<td>1.80 (0.93)</td>
<td>26</td>
<td>2.12 (1.07)</td>
<td>22</td>
<td>1.95 (1.00)</td>
</tr>
<tr>
<td>Knowledge of medical treatments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>38</td>
<td>0.66 (0.58)</td>
<td>27</td>
<td>0.78 (0.64)</td>
<td>23</td>
<td>0.83 (0.72)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>43</td>
<td>0.51 (0.63)</td>
<td>19</td>
<td>0.79 (0.79)</td>
<td>20</td>
<td>0.50 (0.69)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>36</td>
<td>0.47 (0.56)</td>
<td>31</td>
<td>0.55 (0.62)</td>
<td>27</td>
<td>0.63 (0.49)</td>
</tr>
<tr>
<td>Control</td>
<td>34</td>
<td>0.56 (0.61)</td>
<td>26</td>
<td>0.69 (0.68)</td>
<td>22</td>
<td>0.77 (0.75)</td>
</tr>
<tr>
<td>Knowledge of psychological treatments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>36</td>
<td>1.69 (1.26)</td>
<td>27</td>
<td>2.26 (1.20)</td>
<td>23</td>
<td>2.43 (1.12)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>42</td>
<td>1.74 (1.52)</td>
<td>19</td>
<td>2.37 (1.42)</td>
<td>19</td>
<td>2.53 (1.39)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>36</td>
<td>1.78 (1.44)</td>
<td>31</td>
<td>1.90 (1.33)</td>
<td>25</td>
<td>1.80 (1.26)</td>
</tr>
<tr>
<td>Control</td>
<td>33</td>
<td>2.27 (1.55)</td>
<td>27</td>
<td>2.15 (1.61)</td>
<td>22</td>
<td>1.77 (1.41)</td>
</tr>
<tr>
<td>Knowledge of alternative treatments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>37</td>
<td>1.38 (0.92)</td>
<td>27</td>
<td>1.63 (0.84)</td>
<td>22</td>
<td>1.95 (0.84)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>43</td>
<td>1.47 (0.85)</td>
<td>20</td>
<td>1.85 (1.04)</td>
<td>20</td>
<td>2.20 (0.70)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>36</td>
<td>1.39 (0.87)</td>
<td>31</td>
<td>1.35 (0.84)</td>
<td>27</td>
<td>1.33 (0.68)</td>
</tr>
<tr>
<td>Control</td>
<td>34</td>
<td>1.32 (0.91)</td>
<td>26</td>
<td>1.23 (0.91)</td>
<td>21</td>
<td>1.05 (0.80)</td>
</tr>
<tr>
<td></td>
<td>Pre-intervention</td>
<td>Post-intervention</td>
<td>6 month follow-up</td>
<td>12 month follow-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>--------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>Mean (SD)</td>
<td>n</td>
<td>Mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Use of evidence-based treatments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>38</td>
<td>3.39 (2.21)</td>
<td>27</td>
<td>2.96 (1.76)</td>
<td>23</td>
<td>2.57 (1.47)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>45</td>
<td>3.49 (1.80)</td>
<td>20</td>
<td>3.90 (2.00)</td>
<td>20</td>
<td>3.40 (1.79)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>37</td>
<td>3.14 (2.08)</td>
<td>33</td>
<td>2.36 (1.76)</td>
<td>27</td>
<td>2.52 (1.63)</td>
</tr>
<tr>
<td>Control</td>
<td>35</td>
<td>3.71 (2.23)</td>
<td>27</td>
<td>3.74 (2.26)</td>
<td>22</td>
<td>3.09 (1.97)</td>
</tr>
<tr>
<td><strong>Stigma - Personal Stigma subscale of the Depression Stigma Scale (DSS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>38</td>
<td>10.26 (5.36)</td>
<td>27</td>
<td>7.37 (5.10)</td>
<td>22</td>
<td>8.09 (5.76)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>43</td>
<td>11.16 (4.63)</td>
<td>20</td>
<td>10.80 (6.43)</td>
<td>20</td>
<td>9.60 (5.83)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>36</td>
<td>12.61 (6.07)</td>
<td>31</td>
<td>12.42 (5.45)</td>
<td>26</td>
<td>11.58 (5.01)</td>
</tr>
<tr>
<td>Control</td>
<td>34</td>
<td>11.62 (5.61)</td>
<td>27</td>
<td>11.96 (4.68)</td>
<td>22</td>
<td>13.73 (5.39)</td>
</tr>
<tr>
<td><strong>Depression literacy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>37</td>
<td>4.27 (2.46)</td>
<td>26</td>
<td>5.96 (2.18)</td>
<td>21</td>
<td>5.57 (2.09)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>44</td>
<td>4.09 (2.06)</td>
<td>20</td>
<td>5.35 (2.35)</td>
<td>19</td>
<td>5.53 (2.50)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>36</td>
<td>4.67 (2.19)</td>
<td>31</td>
<td>4.42 (2.09)</td>
<td>24</td>
<td>4.33 (2.06)</td>
</tr>
<tr>
<td>Control</td>
<td>34</td>
<td>4.88 (2.33)</td>
<td>27</td>
<td>5.19 (2.80)</td>
<td>20</td>
<td>4.95 (2.67)</td>
</tr>
<tr>
<td><strong>Cognitive behaviour therapy literacy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>37</td>
<td>4.35 (1.89)</td>
<td>27</td>
<td>5.67 (1.62)</td>
<td>22</td>
<td>5.77 (1.27)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>42</td>
<td>4.26 (2.08)</td>
<td>20</td>
<td>5.80 (1.40)</td>
<td>20</td>
<td>5.80 (2.02)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>35</td>
<td>5.06 (1.81)</td>
<td>31</td>
<td>4.10 (1.80)</td>
<td>25</td>
<td>4.48 (1.71)</td>
</tr>
<tr>
<td>Control</td>
<td>34</td>
<td>4.29 (1.80)</td>
<td>27</td>
<td>4.41 (1.95)</td>
<td>20</td>
<td>4.35 (1.98)</td>
</tr>
</tbody>
</table>
4.5 Plan for statistical analysis of continuous outcomes

The effect of the intervention on continuous primary and secondary outcome variables over time was examined using Mixed Models Repeated Measures Analysis of Variance, with measurement occasion as a within groups factor and intervention condition as a between groups factor. Patterns of difference between conditions at each measurement occasion were examined using planned contrasts. For each outcome variable, within group contrasts were conducted to examine change within each condition between each measurement occasion. Between group contrasts were also conducted between all conditions to assess for group differences at each measurement occasion. Effect size estimates were calculated by dividing the mean difference between conditions at post-intervention, 6 month follow-up, and 12 month follow-up by the pooled standard deviation of the groups.

For each outcome, the following results are presented: results for the overall model of the interaction between condition and measurement occasion, results for within group contrasts for each condition from pre- to post-intervention, pre-intervention to 6 month follow-up and pre-intervention to 12 month follow-up, results for between group contrasts between each condition at each measurement occasion, and effect sizes for each of the intervention conditions compared to the control conditions. Results for the test of the interaction and effect sizes are presented both with and without the outliers included in the analyses. For brevity, results for the contrasts are presented with the outliers excluded. Indication is provided when different results were obtained with the outliers included in the analyses. Table 4.5 contains the $F$ ratios and $p$ values for the interaction of trial condition and measurement occasion for each continuous outcome.
Table 4.5 Summary of results of condition by measurement occasion interactions for continuous outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Outliers included</th>
<th>Outliers excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$F$</td>
<td>df</td>
</tr>
<tr>
<td>Depression symptoms</td>
<td>1.52</td>
<td>8,110.7</td>
</tr>
<tr>
<td>Anxiety symptoms</td>
<td>1.24</td>
<td>8,119.5</td>
</tr>
<tr>
<td>Dysfunctional thinking</td>
<td>1.33</td>
<td>8,125.4</td>
</tr>
<tr>
<td>Quality of life</td>
<td>1.92</td>
<td>8,96.5</td>
</tr>
<tr>
<td>Hazardous alcohol use</td>
<td>2.06</td>
<td>8,103.3</td>
</tr>
<tr>
<td>Suicidal ideation</td>
<td>1.13</td>
<td>8,115.8</td>
</tr>
<tr>
<td>Beliefs about Internet treatments</td>
<td>3.27</td>
<td>8,112.5</td>
</tr>
<tr>
<td>Knowledge of helping professionals</td>
<td>1.03</td>
<td>8,105.3</td>
</tr>
<tr>
<td>Knowledge of medical treatments</td>
<td>1.51</td>
<td>8,95.6</td>
</tr>
<tr>
<td>Knowledge of psychological treatments</td>
<td>2.59</td>
<td>8,91.9</td>
</tr>
<tr>
<td>Knowledge of alternative treatments</td>
<td>2.77</td>
<td>8,119.7</td>
</tr>
<tr>
<td>Help seeking</td>
<td>2.40</td>
<td>8,102.7</td>
</tr>
<tr>
<td>Stigma</td>
<td>1.83</td>
<td>8,98.0</td>
</tr>
<tr>
<td>Depression literacy</td>
<td>1.77</td>
<td>8,97.8</td>
</tr>
<tr>
<td>CBT literacy</td>
<td>6.02</td>
<td>8,103.7</td>
</tr>
</tbody>
</table>

4.6 Primary outcomes

4.6.1 Depression

For the depressive symptom data with the outliers included, the overall interaction of trial condition and measurement occasion was non-significant ($F(8, 110.7) = 1.52, p = .157$). However, with the outlying cases removed, different patterns of change were found between conditions over time ($F(8, 100.5) = 2.49, p = .017$). Figure 4.2 shows the estimated marginal means for depression across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.2 Estimated marginal means and standard errors (±1 SE) for depression symptoms

Within group contrasts

Table 4.6 contains contrast estimates and significance tests for within group contrasts from pre-intervention to post-intervention, pre-intervention to 6 month follow-up and pre-intervention to 12 month follow-up.
Table 4.6 Within group contrast estimates and significance tests for depression symptoms

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>-9.73</td>
<td>-16.38</td>
<td>-18.22</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(106.2) = -4.48$</td>
<td>$t(100.2) = -6.58$</td>
<td>$t(69.0) = -6.72$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>-14.14</td>
<td>-16.30</td>
<td>-18.22</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(111.7) = -5.46$</td>
<td>$t(100.5) = -5.86$</td>
<td>$t(73.3) = -5.61$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-7.04</td>
<td>-11.14</td>
<td>-10.22</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(105.1) = -3.52$</td>
<td>$t(100.9) = -4.78$</td>
<td>$t(72.7) = -3.91$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>-3.05</td>
<td>-5.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(105.6) = -1.40$</td>
<td>$t(100.9) = -2.02$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.164</td>
<td>.046*</td>
<td></td>
</tr>
</tbody>
</table>

*Contrast was not significant when outliers were included in the analysis.

Participants in the Internet only, Internet plus tracking and tracking only conditions showed significant declines in depression scores from pre- to post-intervention. Declines in depression scores in the Internet only, Internet plus tracking and tracking only conditions remained significant from pre-intervention to 6 month follow-up. Depression scores in the control condition also showed a significant decline from pre-intervention to 6 month follow-up. At 12 month follow-up, significant declines in depression from pre-intervention were found in the Internet only, Internet plus tracking, and tracking only conditions.
Between group contrasts

Table 4.7 contains contrast estimates and significance tests for contrasts between conditions at each measurement occasion.

Table 4.7 Between group contrast estimates and significance tests for depression symptoms

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>-6.68</td>
<td>-11.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(105.9) = -2.17$</td>
<td>$t(100.6) = -3.17$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.032</td>
<td>.002</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Contrast estimate</td>
<td>-2.68</td>
<td>-5.25</td>
<td>-7.99</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(105.8) = -1.91$</td>
<td>$t(100.6) = -1.54$</td>
<td>$t(70.9) = -2.12$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.365</td>
<td>.127</td>
<td>.037*</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>Contrast estimate</td>
<td>-11.10</td>
<td>-11.18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(109.5) = -3.28$</td>
<td>$t(101.1) = -2.97$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.001</td>
<td>.004*</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td>Contrast estimate</td>
<td>-7.10</td>
<td>-5.17</td>
<td>-8.00</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(109.9) = -2.17$</td>
<td>$t(101.4) = -1.43$</td>
<td>$t(73.6) = -1.92$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.032*</td>
<td>.157</td>
<td>.059</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>-3.99</td>
<td>-6.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(105.4) = -1.35$</td>
<td>$t(100.9) = -1.74$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.180</td>
<td>.084</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td>Contrast estimate</td>
<td>4.41</td>
<td>-.07</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(109.7) = 1.31$</td>
<td>$t(100.6) = -.02$</td>
<td>$t(72.0) = .001$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.195</td>
<td>.984</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Contrast was not significant when outliers were included in the analysis.

At post-intervention, participants in the Internet plus tracking condition showed greater declines in depression symptoms than participants in the control and
tracking only conditions. Participants in the Internet only condition showed greater declines in depression symptoms than participants in the control condition. At 6 month follow-up, declines in depression were greater in the Internet plus tracking and Internet only conditions compared to the control condition. At 12 month follow-up, declines in depression were greater for participants in the Internet only condition relative to participants in the tracking only condition.

4.6.2 Effect sizes for depression

At post-intervention, effect sizes were 0.76 (95% CI: 0.21 to 1.31) for the Internet only condition and 1.04 (95% CI: 0.41 to 1.67) for the Internet plus tracking condition, compared with the control condition. Effect sizes were 0.38 (95% CI: -0.14 to 0.89) for the Internet only condition and 0.65 (95% CI: 0.06 to 1.24) for the Internet plus tracking condition compared with the tracking only condition. With the outlying cases included in the analyses, effect sizes were 0.73 (95% CI: 0.13 to 1.33) for the Internet plus tracking condition compared to the control condition and 0.37 (95% CI: -0.19 to 0.93) compared to the tracking only condition.

At 6 month follow-up, effect sizes were 1.19 (95% CI: 0.56 to 1.83) for the Internet only condition and 1.26 (95% CI: 0.58 to 1.94) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.58 (95% CI: 0.02 to 1.15) for the Internet only condition and 0.60 (95% CI: -0.01 to 1.21) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.82 (95% CI: 0.19 to 1.45) compared to the control condition and 0.26 (95% CI: -0.32 to 0.84) compared to the tracking only condition.
At 12 month follow-up, effect sizes were 0.81 (95% CI: 0.19 to 1.43) for the Internet only condition and 0.56 (95% CI: -0.14 to 1.26) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.40 (95% CI: -0.28 to 1.07) compared to the tracking only condition.

4.6.3 Depression caseness

Using the criterion of a CES-D score greater than or equal to 16, only four participants were not classified as clinical cases at pre-intervention. Table 4.8 shows proportions of participants in each condition meeting criteria for clinical caseness on the CES-D at each measurement occasion (with outlying cases removed from the data).

**Table 4.8** Numbers of participants in each condition meeting clinical caseness for depression

<table>
<thead>
<tr>
<th></th>
<th>Pre-intervention</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>36/38 (94.7%)</td>
<td>19/25 (76.0%)</td>
<td>10/23 (43.5%)</td>
<td>9/21 (42.9%)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>40/41 (97.6%)</td>
<td>12/18 (66.7%)</td>
<td>9/18 (50.0%)</td>
<td>6/13 (46.2%)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>35/36 (97.2%)</td>
<td>28/31 (90.3%)</td>
<td>18/25 (72.0%)</td>
<td>15/20 (75.0%)</td>
</tr>
<tr>
<td>Control</td>
<td>35/35 (100.0%)</td>
<td>25/27 (92.6%)</td>
<td>20/22 (90.9%)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Among those meeting caseness criteria at pre-intervention, a higher percentage of participants in the control condition continued to meet criteria for clinical caseness at post-intervention (92.6%) than in the Internet only (76.0%) or Internet plus tracking conditions (66.7%). Logistic regression analyses revealed that, at post-intervention, the odds of caseness were significantly lower in participants in the Internet plus
tracking condition compared with participants in the control condition (odds ratio .16, 95% CI: .03 to .91, p = .039).

At 6 month follow-up, percentages of clinical cases were further reduced to 43.5% in the Internet only condition and 50.0% in the Internet plus tracking condition, compared with 90.9% in the control condition. At 6 months, the odds of meeting caseness criteria were lower in the Internet plus tracking (odds ratio .10, 95% CI: .02 to .56, p = .009) and Internet only (odds ratio .08, 95% CI: .01 to .41, p = .003) conditions, compared with the control condition.

At 12 month follow-up, percentages of cases were slightly reduced to 42.9% in the Internet only condition and 46.2% in the Internet plus tracking condition, compared to 75.0% in the tracking only condition. The odds of clinical caseness were lower in the Internet only condition compared with participants in the tracking only condition (odds ratio .25, 95% CI: .07 to .95, p = .041).

4.6.4 Numbers needed to treat

To change status on the CES-D from clinical caseness to non-caseness at post-intervention, the estimated number of participants who would need to be treated (NNT) under the Internet only intervention was 6.03 (95% CI: 2.72 – ∞ – NNT 27.15)† and 4.43 (95% CI: 2.22 to 265.75) for the Internet plus tracking intervention.

† The upper confidence interval for the latter estimate extends to infinity and includes the possibility of an increase in caseness (number needed to be harmed: NNTH) arising from treatment (Altman, 1998).
4.6.5 Subsample analysis: Participants who completed 3 or more MoodGYM modules

A subsample analysis of participants who completed all five modules of the MoodGYM intervention was not conducted due to insufficient numbers of participants who fully completed the intervention (see Section 4.8.1 for results regarding intervention adherence). Instead, a subsample analysis was conducted with participants in the Internet only and Internet plus tracking conditions who completed what was considered to be an adequate dose of the intervention, compared with all participants allocated to the tracking only and control conditions. An adequate dose of the intervention was defined as completion of 3 or more MoodGYM modules, since this level of dosage has been shown previously to be effective in reducing depression symptoms (Christensen, Griffiths, Mackinnon, & Brittiffe, 2006).

Table 4.9 shows observed means and standard deviations for the subsample of participants who completed 3 or more MoodGYM modules.

<table>
<thead>
<tr>
<th>Measurement occasion</th>
<th>Pre-intervention</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>$Mean$ (SD)</td>
<td>$n$</td>
<td>$Mean$ (SD)</td>
</tr>
<tr>
<td>Depression - Centre for Epidemiological Studies Depression Scale (CES-D)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>11</td>
<td>31.10 (11.12)</td>
<td>11</td>
<td>20.55 (12.46)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>17</td>
<td>36.18 (7.78)</td>
<td>14</td>
<td>24.71 (14.31)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>36</td>
<td>37.56 (10.73)</td>
<td>33</td>
<td>29.58 (13.15)</td>
</tr>
<tr>
<td>Control</td>
<td>35</td>
<td>38.57 (8.84)</td>
<td>27</td>
<td>35.15 (13.90)</td>
</tr>
</tbody>
</table>
The overall interaction of trial condition and measurement occasion was non-significant, both with the outliers included in the data \(F(8, 77.57) = 1.11, p = .365\) and with the outliers excluded from the data \(F(8, 70.04) = 1.82, p = .087\). Figure 4.3 shows the estimated marginal means for depression across measurement occasions, with the outlying cases excluded from the data.

![Graph showing CES-D scores over time for different conditions](image)

**Figure 4.3** Estimated marginal means and standard errors (±1 SE) for depression symptoms for the subsample of participants who completed 3 or more MoodGYM modules

*Within group contrasts*

Table 4.10 contains contrast estimates and significance tests for within group contrasts from pre-intervention to post-intervention, pre-intervention to 6 month follow-up and pre-intervention to 12 month follow-up.
Table 4.10 Within group contrast estimates and significance tests for depression symptoms for the subsample of participants who completed 3 or more MoodGYM modules

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>-10.55</td>
<td>-15.18</td>
<td>-15.83</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(80.5) = -3.13$</td>
<td>$t(72.5) = -3.94$</td>
<td>$t(47.0) = -3.51$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.002</td>
<td>&lt;.001</td>
<td>.001</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>-13.83</td>
<td>-17.09</td>
<td>-19.92</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(83.7) = -4.53$</td>
<td>$t(72.3) = -5.11$</td>
<td>$t(49.1) = -4.85$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-6.97</td>
<td>-11.05</td>
<td>-10.05</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(82.4) = -3.56$</td>
<td>$t(74.8) = -4.96$</td>
<td>$t(49.3) = -3.77$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>-3.06</td>
<td>-5.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(82.6) = -1.43$</td>
<td>$t(74.6) = -2.10$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.155</td>
<td>.039*</td>
<td></td>
</tr>
</tbody>
</table>

*Contrast was not significant when outliers were included in the analysis.

Within group contrast results in the adequate dosage subsample were the similar to the full sample. Participants in the Internet only, Internet plus tracking and tracking only conditions showed significant declines in depression scores from pre- to post-intervention. Declines in depression scores in the Internet only, Internet plus tracking and tracking only conditions remained significant from pre-intervention to 6 month follow-up. Depression scores in the control condition also showed a significant decline from pre-intervention to 6 month follow-up. At 12 month follow-up, significant declines in depressive symptoms from pre-intervention were found in the Internet only, Internet plus tracking, and tracking only conditions.
**Between group contrasts**

Table 4.11 contains contrast estimates and significance tests for contrasts between conditions at each measurement occasion for participants completing 3 or more modules of MoodGYM.

**Table 4.11** Between group contrast estimates and significance tests for depression symptoms for the subsample of participants who completed 3 or more MoodGYM modules

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only vs Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>-7.49</td>
<td>-10.08</td>
<td></td>
</tr>
<tr>
<td>Test value</td>
<td>(t(81.2) = -1.87)</td>
<td>(t(73.2) = -2.21)</td>
<td></td>
</tr>
<tr>
<td>(p) value</td>
<td>.064</td>
<td>.030(^a)</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>-3.57</td>
<td>-4.14</td>
<td>-5.78</td>
</tr>
<tr>
<td>Test value</td>
<td>(t(80.9) = - .91)</td>
<td>(t(73.1) = - .93)</td>
<td>(t(47.6) = -1.10)</td>
</tr>
<tr>
<td>(p) value</td>
<td>.362</td>
<td>.356</td>
<td>.275</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>-10.77</td>
<td>-11.99</td>
<td></td>
</tr>
<tr>
<td>Test value</td>
<td>(t(83.4) = - 2.89)</td>
<td>(t(73.1) = - 2.90)</td>
<td></td>
</tr>
<tr>
<td>(p) value</td>
<td>.005</td>
<td>.005(^a)</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>-6.86</td>
<td>-6.04</td>
<td>-9.88</td>
</tr>
<tr>
<td>Test value</td>
<td>(t(83.4) = -1.89)</td>
<td>(t(73.1) = -1.50)</td>
<td>(t(49.2) = -2.02)</td>
</tr>
<tr>
<td>(p) value</td>
<td>.062</td>
<td>.137</td>
<td>.049(^a)</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>-3.91</td>
<td>-5.95</td>
<td></td>
</tr>
<tr>
<td>Test value</td>
<td>(t(82.6) = -1.35)</td>
<td>(t(74.8) = -1.81)</td>
<td></td>
</tr>
<tr>
<td>(p) value</td>
<td>.180</td>
<td>.075</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>3.28</td>
<td>1.90</td>
<td>4.09</td>
</tr>
<tr>
<td>Test value</td>
<td>(t(82.0) = .72)</td>
<td>(t(72.5) = .373)</td>
<td>(t(48.0) = .672)</td>
</tr>
<tr>
<td>(p) value</td>
<td>.472</td>
<td>.710</td>
<td>.505</td>
</tr>
</tbody>
</table>

\(^a\) Contrast was not significant when outliers were included in the analysis.
At post-intervention, participants in the Internet plus tracking condition showed greater declines in depression symptoms than participants in the control condition. At 6 month follow-up, declines in depressive symptoms were greater in the Internet plus tracking and Internet only conditions compared to the control condition. At 12 month follow-up, declines in depression scores were greater for participants in the Internet plus tracking condition relative to participants in the tracking only condition.

4.6.6 Effect sizes for depression for subsample of participants who completed 3 or more MoodGYM modules

At post-intervention, effect sizes were 1.06 (95% CI: 0.32 to 1.80) for the Internet only condition and 0.90 (95% CI: 0.21 to 1.59) for the Internet plus tracking condition, compared with the control condition. Effect sizes were 0.68 (95% CI: -0.02 to 1.38) for the Internet only condition and 0.51 (95% CI: -0.14 to 1.16) for the Internet plus tracking condition compared with the tracking only condition. With the outlying cases included in the analyses, effect sizes were 0.73 (95% CI: 0.07 to 1.39) for the Internet plus tracking condition compared to the control condition and 0.35 (95% CI: -0.28 to 0.98) compared to the tracking only condition.

At 6 month follow-up, effect sizes were 1.33 (95% CI: 0.49 to 2.17) for the Internet only condition and 1.25 (95% CI: 0.48 to 2.01) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.72 (95% CI: -0.05 to 1.49) for the Internet only condition and 0.56 (95% CI: -0.13 to 1.25) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.92 (95% CI: 0.20
to 1.64) compared to the control condition and 0.31 (95% CI: -0.35 to 0.98) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.98 (95% CI: 0.14 to 1.83) for the Internet only condition and 0.53 (95% CI: -0.25 to 1.32) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.32 (95% CI: -0.43 to 1.08) compared to the tracking only condition.

4.6.7 Anxiety

For the anxiety symptom data with the outliers included, the overall interaction of trial condition and measurement occasion was non-significant ($F(8, 119.5) = 1.24$, $p = .283$). With the outlying cases removed, differences in patterns of change between conditions over time remained non-significant ($F(8, 127.3) = 1.79, p = .085$). Figure 4.4 shows the estimated marginal means for anxiety across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.4 Estimated marginal means and standard errors (±1 SE) for anxiety symptoms

Within group contrasts

Table 4.12 contains contrast estimates and significance tests for within group contrasts from pre-intervention to post-intervention, pre-intervention to 6 month follow-up and pre-intervention to 12 month follow-up.
Table 4.12 Within group contrast estimates and significance tests for anxiety symptoms

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>-4.19</td>
<td>-5.74</td>
<td>-5.56</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(106.9) = -3.44$</td>
<td>$t(96.9) = -4.39$</td>
<td>$t(81.1) = -4.31$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>-3.76</td>
<td>-5.80</td>
<td>-6.09</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(112.7) = -2.59$</td>
<td>$t(95.4) = -3.97$</td>
<td>$t(85.5) = -4.06$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.011*</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-2.02</td>
<td>-1.94</td>
<td>-2.15</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(104.5) = -1.81$</td>
<td>$t(96.1) = -1.60$</td>
<td>$t(83.8) = -1.75$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.074</td>
<td>.113</td>
<td>.084</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>.63</td>
<td>-1.98</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(108.7) = .51$</td>
<td>$t(97.4) = -1.49$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.612</td>
<td>.141</td>
<td></td>
</tr>
</tbody>
</table>

*Contrast was not significant when outliers were included in the analysis.

Participants in the Internet only and Internet plus tracking conditions showed significant declines in anxiety symptoms from pre-intervention to post-intervention. At 6 and 12 month follow-up, significant declines in anxiety symptoms from pre-intervention were maintained in the Internet only and Internet plus tracking conditions.

**Between group contrasts**

Table 4.13 contains contrast estimates and significance tests for contrasts between conditions at each measurement occasion.
Table 4.13 Between group contrast estimates and significance tests for anxiety symptoms

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>-4.81</td>
<td>-3.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(107.9) = -2.77$</td>
<td>$t(97.2) = -2.01$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.007</td>
<td>.047*</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Contrast estimate</td>
<td>-2.17</td>
<td>-3.79</td>
<td>-3.41</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(105.9) = -1.31$</td>
<td>$t(96.6) = -2.13$</td>
<td>$t(82.5) = -1.92$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.192</td>
<td>.036*</td>
<td>.059</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>Contrast estimate</td>
<td>-4.38</td>
<td>-3.81</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(111.4) = -2.30$</td>
<td>$t(96.7) = -1.93$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.023*</td>
<td>.057</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td>Contrast estimate</td>
<td>-1.74</td>
<td>-3.86</td>
<td>-3.95</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(110.1) = -.95$</td>
<td>$t(96.3) = -2.03$</td>
<td>$t(85.6) = -2.04$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.343</td>
<td>.045*</td>
<td>.045*</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>-2.64</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(106.8) = -1.59$</td>
<td>$t(96.8) = .02$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.115</td>
<td>.981</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td>Contrast estimate</td>
<td>-.43</td>
<td>.06</td>
<td>.53</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(110.5) = -.29$</td>
<td>$t(96.3) = .03$</td>
<td>$t(84.1) = .27$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.820</td>
<td>.975</td>
<td>.788</td>
</tr>
</tbody>
</table>

*Contrast was not significant when outliers were included in the analysis.

At post-intervention, participants in the Internet only and Internet plus tracking conditions showed a greater decline in anxiety symptoms than participants in the control condition. With the outliers included in the analyses, the contrast between the Internet only and control conditions at post-intervention remained significant; however, the contrast between the Internet plus tracking and control conditions was no longer significant. At 6 months, declines in anxiety were significantly greater in the Internet only condition relative to the control condition and the tracking only.
condition. A significant decline in symptoms was also found in the Internet plus tracking condition relative to the tracking only condition. With the outliers included in the analyses, no significant differences in symptoms were found between conditions. At 12 months, declines in anxiety for participants in the Internet plus tracking condition were greater than that for participants in the tracking only condition. However, with the outliers included in the analyses, this contrast was no longer significant.

4.6.8 Effect sizes for anxiety

At post-intervention, effect sizes were 0.81 (95% CI: 0.25 to 1.36) for the Internet only condition and 0.80 (95% CI: 0.18 to 1.42) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.27 (95% CI: -0.24 to 0.78) for the Internet only condition and 0.26 (95% CI: -0.32 to 0.83) for the Internet plus tracking condition. With the outliers included in the analyses, the effect sizes for the Internet plus tracking condition were 0.54 (95% CI: -0.05 to 1.13) compared with the control condition and 0.02 (95% CI: -0.54 to 0.57) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 0.84 (95% CI: 0.23 to 1.45) for the Internet only condition and 0.91 (95% CI: 0.25 to 1.56) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.46 (95% CI: -0.11 to 1.02) for the Internet only condition and 0.47 (95% CI: -0.13 to 1.08) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.51 (95% CI: -0.11 to 1.12) compared to the control condition and 0.21 (95% CI: -0.37 to 0.79) compared to the tracking only condition.
At 12 month follow-up, effect sizes were 0.59 (95% CI: -0.02 to 1.20) for the Internet only condition and 0.59 (95% CI: -0.11 to 1.29) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.42 (95% CI: -0.25 to 1.10) compared to the tracking only condition.

4.6.9 Summary of key primary outcomes

For depression symptoms, the interaction of measurement occasion and condition was non-significant with the outlying cases included in the analysis. However, this interaction was significant when the outliers were excluded. Regardless of whether or not the outliers were included in the analyses, depression symptoms were significantly reduced at post-intervention in participants who received the Internet only and Internet plus tracking interventions, compared to participants allocated to the control condition. At 6 month follow-up, this was true only for participants in the Internet only condition. Participants in the Internet only, Internet plus tracking and tracking only conditions did not differ in depression symptom reduction at 12 month follow-up. Moderate to large effect sizes were obtained for the Internet only and Internet plus tracking interventions relative to the control group at post-intervention and 6 month follow-up.

For anxiety symptoms, the interaction of measurement occasion and condition was non-significant irrespective of the inclusion or exclusion of the outliers in the analyses. The Internet only intervention was associated with a reduction in anxiety symptoms relative to the control condition at post-intervention. Moderate effect sizes were obtained for the Internet only and Internet plus tracking interventions relative to the control group at post-intervention and 6 month follow-up.
4.7 Secondary outcomes

4.7.1 Dysfunctional thinking

For the dysfunctional thinking data with the outliers included, the overall interaction of trial condition and measurement occasion was non-significant ($F(8, 125.4) = 1.33, p = .233$). With the outlying cases removed, differences in patterns of change between conditions over time remained non-significant ($F(8, 114.9) = 1.75, p = .094$). Figure 4.5 shows the estimated marginal means for dysfunctional thinking across measurement occasions, both with and without the outlying cases included in the data.

Figure 4.5 Estimated marginal means and standard errors (±1 SE) for dysfunctional thinking
Within group contrasts

As can be seen in below Table 4.14, planned contrasts revealed that participants in the Internet only, Internet plus tracking and tracking only conditions showed significant declines in dysfunctional thinking from pre- to post-intervention. Significant declines in dysfunctional thinking were found from pre-intervention to 6 month follow-up in the Internet only, Internet plus tracking, tracking only, and control conditions. From pre-intervention to 12 month follow-up, significant declines in dysfunctional thinking were found in the Internet only, Internet plus tracking, and tracking only conditions. All contrasts remained significant with the outliers included in the analyses.

Table 4.14 Within group contrast estimates and significance tests for dysfunctional thinking

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>-6.80</td>
<td>-9.21</td>
<td>-10.51</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(105.9) = -5.39</td>
<td>t(103.6) = -6.12</td>
<td>t(79.9) = -7.41</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>-6.78</td>
<td>-8.19</td>
<td>-9.21</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(113.7) = -4.35</td>
<td>t(104.5) = -4.92</td>
<td>t(85.4) = -5.16</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-3.40</td>
<td>-6.86</td>
<td>-7.02</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(101.3) = -2.93</td>
<td>t(100.9) = -4.87</td>
<td>t(80.6) = -5.13</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.004</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>-1.74</td>
<td>-3.82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(109.1) = -1.34</td>
<td>t(102.2) = -2.46</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.18</td>
<td>.016</td>
<td></td>
</tr>
</tbody>
</table>
Between group contrasts

As shown in Table 4.15, participants in the Internet plus tracking condition showed a greater decline in dysfunctional thinking than participants in the control condition at post-intervention. Participants in the Internet only condition also showed a greater decline in dysfunctional thinking than participants in the control condition. Decline in symptoms in the Internet only condition relative to the tracking only condition approached significance. With the outliers included in the analyses, only the contrast between the Internet only and control conditions remained significant. At 6 month follow-up, the decline in dysfunctional thinking was greater in the Internet only condition relative to the control condition. No significant differences were found between the Internet only, Internet plus tracking and tracking only conditions in declines in dysfunctional thinking at 12 month follow-up.
Table 4.15 Between group contrast estimates and significance tests for dysfunctional thinking

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>-5.06</td>
<td>-5.39</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(107.7) = -2.79$</td>
<td>$t(102.9) = -2.49$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.006</td>
<td>.014</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Contrast estimate</td>
<td>-3.40</td>
<td>-2.35</td>
<td>-3.49</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(103.9) = -1.98$</td>
<td>$t(102.5) = -1.14$</td>
<td>$t(80.4) = -1.77$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.050*</td>
<td>.26</td>
<td>.08</td>
</tr>
<tr>
<td>Internet tracking vs Control</td>
<td>Contrast estimate</td>
<td>-5.04</td>
<td>-4.38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(113.5) = -2.48$</td>
<td>$t(104.3) = -1.92$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.015*</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs</td>
<td>Contrast estimate</td>
<td>-3.38</td>
<td>-1.34</td>
<td>-2.19</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Test value</td>
<td>$t(111.18) = -1.73$</td>
<td>$t(104.3) = -1.61$</td>
<td>$t(84.8) = -1.02$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.09</td>
<td>.54</td>
<td>.31</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>-1.66</td>
<td>-3.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(105.6) = -0.95$</td>
<td>$t(101.6) = -1.45$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.34</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet +</td>
<td>Contrast estimate</td>
<td>-.02</td>
<td>-1.02</td>
<td>-1.30</td>
</tr>
<tr>
<td>tracking</td>
<td>Test value</td>
<td>$t(111.7) = -0.01$</td>
<td>$t(104.7) = -1.45$</td>
<td>$t(84.0) = -0.60$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.99</td>
<td>.65</td>
<td>.55</td>
</tr>
</tbody>
</table>

*Contrast was not significant when outliers were included in the analysis.

4.7.2 Effect sizes for dysfunctional thinking

At post-intervention, effect sizes were 0.95 (95% CI: 0.39 to 1.51) for the Internet only condition and 1.10 (95% CI: 0.44 to 1.76) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.57 (95% CI: 0.05 to 1.08) for the Internet only condition and 0.75 (95% CI: 0.13 to 1.36) for the Internet plus tracking condition. With the outliers included in the analyses, the effect sizes for the Internet plus tracking condition were 0.78 (95% CI: .... 158
0.17 to 1.40) compared with the control condition and 0.42 (95% CI: -0.16 to 1.00) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 1.06 (95% CI: 0.44 to 1.69) for the Internet only condition and 1.09 (95% CI: 0.42 to 1.75) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.45 (95% CI: -0.11 to 1.02) for the Internet only condition and 0.45 (95% CI: -0.15 to 1.06) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.67 (95% CI: 0.05 to 1.29) compared to the control condition and 0.14 (95% CI: -0.44 to 0.72) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.71 (95% CI: 0.10 to 1.33) for the Internet only condition and 0.48 (95% CI: -0.21 to 1.18) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.31 (95% CI: -0.36 to 0.99) compared to the tracking only condition.

4.7.3 Quality of life

For the quality of life data with the outliers included, the overall interaction of trial condition and measurement occasion was non-significant \( (F(8, 96.5) = 1.92, p = .066)\). However, with the outlying cases removed, patterns of change between conditions over time were significantly different \( (F(8, 94.4) = 2.39, p = .022)\). Figure 4.6 shows the estimated marginal means for quality of life across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.6 Estimated marginal means and standard errors (±1 SE) for quality of life

**Within group contrasts**

As can be seen in below Table 4.16, planned contrasts revealed that significant improvement in quality of life was found in participants in the Internet only and the Internet plus tracking conditions from pre- to post-intervention. Increases in quality of life were maintained in the Internet only and Internet plus tracking conditions from pre-intervention to 6 month follow-up and from pre-intervention to 12 month follow-up.
**Table 4.16** Within group contrast estimates and significance tests for quality of life

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>3.62</td>
<td>4.58</td>
<td>4.62</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(101.9) = 4.07</td>
<td>t(96.5) = 4.16</td>
<td>t(67.3) = 3.61</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>.001</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>3.29</td>
<td>4.65</td>
<td>4.66</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(108.9) = 2.86</td>
<td>t(95.9) = 3.75</td>
<td>t(71.4) = 3.04</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.005</td>
<td>&lt;.001</td>
<td>.003</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>1.31</td>
<td>1.90</td>
<td>2.13</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(108.9) = 2.86</td>
<td>t(96.1) = 1.86</td>
<td>t(69.4) = 1.73</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.11</td>
<td>.07</td>
<td>.09</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>-.58</td>
<td>-.48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(101.4) = -.65</td>
<td>t(97.1) = -.43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.51</td>
<td>.67</td>
<td></td>
</tr>
</tbody>
</table>

**Between group contrasts**

As shown in Table 4.17, participants in the Internet only condition and the Internet plus tracking condition showed greater increases in quality of life than participants in the control condition at post-intervention. At 6 month follow-up, participants in the Internet only and Internet plus tracking conditions showed greater increases in quality of life than participants in the control condition. At 12 month follow-up, no significant differences were found between conditions in improvement in quality of life.
### Table 4.17 Between group contrast estimates and significance tests for quality of life

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>4.20</td>
<td>5.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td><em>t</em>(101.7) = 3.33</td>
<td><em>t</em>(96.8) = 3.21</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>.001</td>
<td>.002</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Contrast estimate</td>
<td>2.31</td>
<td>2.68</td>
<td>2.49</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td><em>t</em>(100.8) = 1.92</td>
<td><em>t</em>(96.4) = 1.79</td>
<td><em>t</em>(68.4) = 1.40</td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>.06</td>
<td>.08</td>
<td>.17</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>Contrast estimate</td>
<td>3.88</td>
<td>5.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td><em>t</em>(106.9) = 2.66</td>
<td><em>t</em>(96.8) = 3.07</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>.009</td>
<td>.003</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking</td>
<td>Contrast estimate</td>
<td>1.98</td>
<td>2.75</td>
<td>2.54</td>
</tr>
<tr>
<td>only</td>
<td>Test value</td>
<td><em>t</em>(106.9) = 1.41</td>
<td><em>t</em>(96.5) = 1.71</td>
<td><em>t</em>(71.1) = 1.30</td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>.16</td>
<td>.09</td>
<td>.20</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>1.89</td>
<td>2.38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td><em>t</em>(100.5) = 1.57</td>
<td><em>t</em>(96.7) = 1.57</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>.12</td>
<td>.12</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet +</td>
<td>Contrast estimate</td>
<td>.33</td>
<td>-.07</td>
<td>-.04</td>
</tr>
<tr>
<td>tracking</td>
<td>Test value</td>
<td><em>t</em>(107.0) = .23</td>
<td><em>t</em>(96.5) = -.04</td>
<td><em>t</em>(70.1) = -.02</td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>.82</td>
<td>.97</td>
<td>.98</td>
</tr>
</tbody>
</table>

### 4.7.4 Effect sizes for quality of life

At post-intervention, effect sizes were 0.81 (95% CI: 0.25 to 1.36) for the Internet only condition and 0.63 (95% CI: -0.02 to 1.27) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.41 (95% CI: -0.11 to 0.92) for the Internet only condition and 0.22 (95% CI: -0.39 to 0.83) for the Internet plus tracking condition. With the outliers included in the analyses, the effect sizes for the Internet plus tracking condition were 0.51 (95% CI: -
0.11 to 1.12) compared with the control condition and 0.10 (95% CI: -0.48 to 0.69) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 0.91 (95% CI: 0.29 to 1.52) for the Internet only condition and 0.98 (95% CI: 0.33 to 1.64) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.35 (95% CI: -0.21 to 0.91) for the Internet only condition and 0.35 (95% CI: -0.25 to 0.95) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.80 (95% CI: 0.17 to 1.43) compared to the control condition and 0.20 (95% CI: -0.38 to 0.78) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.32 (95% CI: -0.28 to 0.93) for the Internet only condition and 0.04 (95% CI: -0.64 to 0.73) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.01 (95% CI: -0.66 to 0.68) compared to the tracking only condition.

4.7.5 Hazardous alcohol use

For the hazardous alcohol use data with the outliers included, the overall interaction of trial condition and measurement occasion was significant ($F(8, 103.3) = 2.06, p = .047$). With the outlying cases removed, differences in patterns of change between conditions remained significant ($F(8, 102.1) = 2.09, p = .043$). Figure 4.7 shows the estimated marginal means for hazardous alcohol use across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.7 Estimated marginal means and standard errors (±1 SE) for hazardous alcohol use

Within group contrasts

As can be seen in below Table 4.18, planned contrasts revealed that participants in the Internet only and Internet plus tracking conditions showed significant declines in hazardous alcohol use from pre- to post-intervention. A significant decline in hazardous alcohol use from pre-intervention to 6 month follow-up was found in participants in the Internet only condition, and this decline remained significant at 12 month follow-up.
Table 4.18 Within group contrast estimates and significance tests for hazardous alcohol use

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>-1.28</td>
<td>-1.53</td>
<td>-1.40</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(94.7) = -2.70 )</td>
<td>( t(109.5) = -2.27 )</td>
<td>( t(76.2) = -2.11 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.008</td>
<td>.025</td>
<td>.038</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>-1.72</td>
<td>-1.39</td>
<td>-.93</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(108.9) = -2.95 )</td>
<td>( t(113.6) = -1.88 )</td>
<td>( t(80.1) = -1.18 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.004</td>
<td>.06</td>
<td>.24</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>.24</td>
<td>-.75</td>
<td>-.19</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(91.0) = .54 )</td>
<td>( t(107.2) = -1.13 )</td>
<td>( t(77.6) = -.29 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.59</td>
<td>.26</td>
<td>.77</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>.60</td>
<td>.32</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(98.8) = 1.20 )</td>
<td>( t(109.3) = .46 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.23</td>
<td>.65</td>
<td></td>
</tr>
</tbody>
</table>

**Between group contrasts**

At post-intervention, participants in the Internet plus tracking condition showed a greater decline in hazardous alcohol use than participants in the control condition and the tracking only condition. Participants in the Internet only condition also showed a greater decline in hazardous alcohol use than participants in the control condition and the tracking only condition. At 6 and 12 month follow-up, no significant differences were found between conditions in declines in hazardous alcohol use.
Table 4.19 Between group contrast estimates and significance tests for hazardous alcohol use

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contrast estimate</td>
<td>Test value</td>
<td>p value</td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td>-1.88</td>
<td>$t(96.9) = -2.73$</td>
<td>.008</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-1.86</td>
<td>$t(109.4) = -1.91$</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>-1.52</td>
<td>$t(93.0) = -2.33$</td>
<td>.022</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.79</td>
<td>$t(108.5) = -.83$</td>
<td>.41</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-1.20</td>
<td>$t(77.1) = -1.30$</td>
<td>.20</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>-2.32</td>
<td>$t(105.7) = -3.02$</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-1.71</td>
<td>$t(112.7) = -1.68$</td>
<td>.10</td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td>-1.96</td>
<td>$t(103.9) = -2.67$</td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.64</td>
<td>$t(112.6) = -.65$</td>
<td>.52</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.74</td>
<td>$t(80.3) = -.73$</td>
<td>.47</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>-.36</td>
<td>$t(95.4) = -.54$</td>
<td>.59</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-1.07</td>
<td>$t(108.4) = -1.11$</td>
<td>.27</td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td>.45</td>
<td>$t(104.3) = .59$</td>
<td>.55</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.14</td>
<td>$t(112.7) = -.14$</td>
<td>.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.46</td>
<td>$t(79.2) = -.45$</td>
<td>.65</td>
</tr>
</tbody>
</table>

4.7.6 Effect sizes for hazardous alcohol use

At post-intervention, effect sizes were 0.23 (95% CI: -0.32 to 0.79) for the Internet only condition and 0.26 (95% CI: -0.39 to 0.91) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.27 (95% CI: -0.25 to 0.78) for the Internet only condition and 0.31 (95% CI: -0.31 to 0.93) for the Internet plus tracking condition. With the outliers included in the analyses, the effect sizes for the Internet plus tracking condition were 0.33 (95% CI: -
0.29 to 0.96) compared with the control condition and 0.40 (95% CI: -0.20 to 0.99) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 0.15 (95% CI: -0.75 to 0.44) for the Internet only condition and 0.18 (95% CI: -0.81 to 0.45) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.00 (95% CI: -0.57 to 0.57) for the Internet only condition and 0.01 (95% CI: -0.60 to 0.62) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.08 (95% CI: -0.70 to 0.53) compared to the control condition and 0.09 (95% CI: -0.50 to 0.69) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.05 (95% CI: -0.55 to 0.65) for the Internet only condition and 0.31 (95% CI: -0.38 to 1.00) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.36 (95% CI: -0.32 to 1.03) compared to the tracking only condition.

4.7.7 Suicidal ideation

For the suicidal ideation data with the outliers included, the overall interaction of trial condition and measurement occasion was non-significant ($F(8, 115.8) = 1.13$, $p = .352$). With the outlying cases removed, differences in patterns of change between conditions over time remained non-significant ($F(8, 115.7) = 1.09, p = .372$). Figure 4.8 shows the estimated marginal means for suicidal ideation across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.8 Estimated marginal means and standard errors (±1 SE) for suicidal ideation

Within group contrasts

As can be seen in below Table 4.20, planned contrasts revealed that participants in the tracking only and control conditions showed significant declines in suicidal ideation from pre- to post-intervention. Participants in all conditions showed significant declines in suicidal ideation from pre-intervention to 6 month follow-up. However, only the declines in symptoms in the Internet only and tracking only conditions from pre-intervention to 6 month follow-up were significant with the outliers included in the analyses. Declines in suicidal ideation from pre-intervention remained significant at 12 month follow-up for participants in the Internet only, Internet plus tracking and tracking only conditions.
Table 4.20 Within group contrast estimates and significance tests for suicidal ideation

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post- intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>-.54</td>
<td>-.78</td>
<td>-.96</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(108.4) = -1.98)</td>
<td>(t(100.1) = -2.50)</td>
<td>(t(74.1) = -3.71)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.051</td>
<td>.014</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>-.21</td>
<td>-.79</td>
<td>-1.34</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(120.2) = -.67)</td>
<td>(t(105.8) = -2.34)</td>
<td>(t(80.7) = -4.60)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.50</td>
<td>.021*</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-.79</td>
<td>-.68</td>
<td>-70</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(104.2) = -3.05)</td>
<td>(t(98.4) = -2.28)</td>
<td>(t(78.5) = 2.64)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.003</td>
<td>.025</td>
<td>.01</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>-.80</td>
<td>-.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(106.6) = -2.90)</td>
<td>(t(101.5) = -2.02)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.005</td>
<td>.047*</td>
<td></td>
</tr>
</tbody>
</table>

*Contrast was not significant when outliers were included in the analysis.

**Between group contrasts**

As shown in Table 4.21, no significant differences were found between conditions at post-intervention, 6 month follow-up, or 12 month follow-up.
<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contrast estimate</td>
<td>.26</td>
<td>-.13</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td>Test value</td>
<td>(t(107.5) = .66)</td>
<td>(t(100.8) = -.29)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.51</td>
<td>.77</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contrast estimate</td>
<td>.25</td>
<td>-.10</td>
<td>-.28</td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Test value</td>
<td>(t(106.5) = .67)</td>
<td>(t(99.4) = -.24)</td>
<td>(t(76.4) = -.77)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.51</td>
<td>.81</td>
<td>.44</td>
</tr>
<tr>
<td></td>
<td>Contrast estimate</td>
<td>.59</td>
<td>-.13</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>Test value</td>
<td>(t(115.9) = 1.41)</td>
<td>(t(104.5) = -.29)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.16</td>
<td>.76</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contrast estimate</td>
<td>.58</td>
<td>-.11</td>
<td>-.66</td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td>Test value</td>
<td>(t(116.2) = 1.43)</td>
<td>(t(104.0) = -.24)</td>
<td>(t(81.1) = -1.69)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.16</td>
<td>.81</td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td>Contrast estimate</td>
<td>.00</td>
<td>-.03</td>
<td></td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Test value</td>
<td>(t(105.5) = .01)</td>
<td>(t(100.3) = -.05)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.99</td>
<td>.96</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contrast estimate</td>
<td>-.33</td>
<td>.00</td>
<td>.38</td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td>Test value</td>
<td>(t(116.5) = -.79)</td>
<td>(t(103.8) = .01)</td>
<td>(t(78.9) = .97)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.43</td>
<td>.99</td>
<td>.34</td>
</tr>
</tbody>
</table>

### 4.7.8 Effect sizes for suicidal ideation

At post-intervention, effect sizes were 0.10 (95% CI: -0.43 to 0.64) for the Internet only condition and 0.09 (95% CI: -0.51 to 0.68) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.28 (95% CI: -0.79 to 0.24) for the Internet only condition and 0.28 (95% CI: -0.86 to 0.30) for the Internet plus tracking condition. With the outliers included in the analyses, the effect sizes for the Internet plus tracking condition were 0.04 (95% CI: -
0.62 to 0.54) compared with the control condition and 0.41 (95% CI: -0.98 to 0.15) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 0.36 (95% CI: -0.24 to 0.96) for the Internet only condition and 0.42 (95% CI: -0.21 to 1.06) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.08 (95% CI: -0.48 to 0.63) for the Internet only condition and 0.15 (95% CI: -0.45 to 0.75) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.20 (95% CI: -0.42 to 0.81) compared to the control condition and 0.07 (95% CI: -0.65 to 0.51) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.28 (95% CI: -0.33 to 0.89) for the Internet only condition and 0.64 (95% CI: -0.07 to 1.35) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.45 (95% CI: -0.24 to 1.13) compared to the tracking only condition.

4.7.9 Beliefs about Internet treatments

For the Internet treatment beliefs data with the outliers included, the overall interaction of trial condition and measurement occasion was significant \((F/8, 112.5) = 3.27, p = .002\). With the outlying cases removed, differences in patterns of change between conditions remained significant \((F/8, 111.2) = 3.29, p = .002\). Figure 4.9 shows the estimated marginal means for beliefs about Internet treatments across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.9 Estimated marginal means and standard errors (±1 SE) for beliefs about Internet treatments

Within group contrasts

As shown below in Table 4.22, participants in the Internet plus tracking condition showed a significant increase in favourable beliefs towards Internet treatments from pre- to post-intervention, and this increase was maintained at 6 and 12 month follow-up. No other significant differences were found within conditions across time.
Table 4.22 Within group contrast estimates and significance tests for beliefs about Internet treatments

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>.16</td>
<td>.12</td>
<td>.50</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(97.9) = .51$</td>
<td>$t(96.2) = .34$</td>
<td>$t(80.7) = 1.35$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.61</td>
<td>.74</td>
<td>.18</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>1.66</td>
<td>1.35</td>
<td>1.64</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(110.9) = 4.68$</td>
<td>$t(100.0) = 3.55$</td>
<td>$t(89.6) = 3.82$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>&lt;.001</td>
<td>.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-.46</td>
<td>-.36</td>
<td>-.46</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(91.3) = -1.58$</td>
<td>$t(88.6) = -1.11$</td>
<td>$t(79.3) = -1.26$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.12</td>
<td>.27</td>
<td>.21</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>-.03</td>
<td>-.35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(97.7) = -.09$</td>
<td>$t(99.1) = -.98$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.92</td>
<td>.33</td>
<td></td>
</tr>
</tbody>
</table>

**Between group contrasts**

At post-intervention and at 6 month follow-up, participants in the Internet plus tracking condition held more positive beliefs about Internet treatments than participants in the control condition, the tracking only condition and the Internet only condition. At 12 month follow-up, participants in the Internet plus tracking condition held more positive beliefs about Internet treatments than participants in the tracking only condition and the Internet only condition.
Table 4.23 Between group contrast estimates and significance tests for beliefs about Internet treatments

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>.19</td>
<td>.48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(97.8) = .42 )</td>
<td>( t(97.7) = .94 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.67</td>
<td>.35</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Contrast estimate</td>
<td>.61</td>
<td>.48</td>
<td>.95</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(94.9) = 1.46 )</td>
<td>( t(92.8) = 1.00 )</td>
<td>( t(80.2) = 1.84 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.15</td>
<td>.32</td>
<td>.07</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>Contrast estimate</td>
<td>1.69</td>
<td>1.70</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(106.2) = 3.55 )</td>
<td>( t(100.5) = 3.25 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.001</td>
<td>.002</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td>Contrast estimate</td>
<td>2.12</td>
<td>1.71</td>
<td>2.09</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(104.4) = 4.62 )</td>
<td>( t(96.4) = 3.42 )</td>
<td>( t(86.7) = 3.75 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>&lt;.001</td>
<td>.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>-.43</td>
<td>-.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(94.8) = -1.00 )</td>
<td>( t(94.3) = -.01 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.32</td>
<td>.99</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td>Contrast estimate</td>
<td>-1.5</td>
<td>-1.23</td>
<td>-1.14</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(105.9) = -3.19 )</td>
<td>( t(98.8) = -2.39 )</td>
<td>( t(86.6) = -2.01 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.002</td>
<td>.019</td>
<td>.047</td>
</tr>
</tbody>
</table>

4.7.10 Effect sizes for beliefs about Internet treatments

At post-intervention, effect sizes were 0.62 (95% CI: 0.08 to 1.17) for the Internet only condition and 1.01 (95% CI: 0.38 to 1.64) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.54 (95% CI: 0.02 to 1.06) for the Internet only condition and 0.83 (95% CI: 0.23 to 1.43) for the Internet plus tracking condition. With the outliers included in the analyses, the effect sizes for the Internet plus tracking condition were 0.98 (95% CI:
0.37 to 1.59) compared with the control condition and 0.81 (95% CI: 0.23 to 1.39) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 0.70 (95% CI: 0.08 to 1.31) for the Internet only condition and 1.01 (95% CI: 0.34 to 1.67) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.35 (95% CI: -0.22 to 0.92) for the Internet only condition and 0.64 (95% CI: 0.03 to 1.25) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 1.02 (95% CI: 0.37 to 1.67) compared to the control condition and 0.64 (95% CI: 0.05 to 1.23) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.61 (95% CI: 0.00 to 1.22) for the Internet only condition and 0.76 (95% CI: 0.05 to 1.46) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.75 (95% CI: 0.06 to 1.45) compared to the tracking only condition.

4.7.11 Knowledge of helping professionals

This outcome measured participants' knowledge of the evidence-base for people who can assist in the treatment of depression. For data with the outliers included, the overall interaction of trial condition and measurement occasion was non-significant ($F_{8, 105.3} = 1.03, p = .420$). With the outlying cases removed, differences in patterns of change between conditions over time remained non-significant ($F_{8, 106.5} = 1.02, p = .427$). Figure 4.10 shows the estimated marginal means for knowledge of helping professionals across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.10 Estimated marginal means and standard errors (±1 SE) for knowledge of helping professionals

Within group contrasts

As shown below in Table 4.24, planned contrasts revealed no significant changes in literacy for helping professionals in any condition from pre- to post-intervention. At 6 month follow-up, a significant improvement in knowledge of helping professionals was found in participants in the Internet plus tracking condition, and this improvement was maintained at 12 month follow-up.
Table 4.24 Within group contrast estimates and significance tests for knowledge of helping professionals

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>-06</td>
<td>.13</td>
<td>.15</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(107.2) = .32$</td>
<td>$t(94.5) = .74$</td>
<td>$t(59.6) = .78$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.75</td>
<td>.46</td>
<td>.44</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>.19</td>
<td>.45</td>
<td>.50</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(115.4) = .87$</td>
<td>$t(102.2) = 2.29$</td>
<td>$t(62.7) = 2.16$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.38</td>
<td>.024</td>
<td>.03</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-.15</td>
<td>.07</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(104.5) = -.86$</td>
<td>$t(91.3) = .43$</td>
<td>$t(61.3) = .43$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.39</td>
<td>.67</td>
<td>.67</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>.36</td>
<td>.12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(107.4) = 1.93$</td>
<td>$t(94.8) = .68$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.06</td>
<td>.50</td>
<td></td>
</tr>
</tbody>
</table>

*Between group contrasts*

At post-intervention, participants in the tracking only condition had significantly poorer knowledge of helping professionals compared to participants in the control condition. At 6 and 12 month follow-up, there were no significant differences found between conditions for knowledge of helping professionals.
Table 4.25 Between group contrast estimates and significance tests for knowledge of helping professionals

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>-.42</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(107.4) = -1.60</td>
<td>t(94.6) = .03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.11</td>
<td>.98</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Contrast estimate</td>
<td>.10</td>
<td>.06</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(106.1) = .36</td>
<td>t(93.1) = .24</td>
<td>t(60.5) = .25</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.72</td>
<td>.81</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>Contrast estimate</td>
<td>-.17</td>
<td>.33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(112.9) = -.58</td>
<td>t(99.4) = 1.22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.56</td>
<td>.23</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td>Contrast estimate</td>
<td>.34</td>
<td>.38</td>
<td>.41</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(112.7) = 1.22</td>
<td>t(98.7) = 1.47</td>
<td>t(62.7) = 1.38</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.23</td>
<td>.15</td>
<td>.17</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>-.51</td>
<td>-.05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(106.2) = -2.01</td>
<td>t(93.3) = -.21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.047</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td>Contrast estimate</td>
<td>-.25</td>
<td>-.31</td>
<td>-.35</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>t(112.8) = -.87</td>
<td>t(99.2) = -1.20</td>
<td>t(62.1) = -1.17</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.38</td>
<td>.23</td>
<td>.25</td>
</tr>
</tbody>
</table>

4.7.12 Effect sizes for knowledge of helping professionals

At post-intervention, effect sizes were 0.10 (95% CI: -0.44 to 0.64) for the Internet only condition and 0.04 (95% CI: -0.56 to 0.64) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.60 (95% CI: 0.07 to 1.12) for the Internet only condition and 0.49 (95% CI: -0.09 to 1.08) for the Internet plus tracking condition. With the outliers included in the
analyses, the effect sizes for the Internet plus tracking condition were 0.02 (95% CI: -0.60 to 0.57) compared with the control condition and 0.42 (95% CI: -0.14 to 0.98) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 0.61 (95% CI: 0.01 to 1.21) for the Internet only condition and 0.52 (95% CI: -0.11 to 1.16) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.72 (95% CI: 0.15 to 1.29) for the Internet only condition and 0.63 (95% CI: 0.02 to 1.24) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.56 (95% CI: -0.06 to 1.19) compared to the control condition and 0.67 (95% CI: 0.07 to 1.27) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.70 (95% CI: 0.07 to 1.33) for the Internet only condition and 0.56 (95% CI: -0.16 to 1.27) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.60 (95% CI: -0.10 to 1.30) compared to the tracking only condition.

4.7.13 Knowledge of medical treatments

This outcome measured participants' knowledge of the evidence-base for medical treatments for depression. For data with the outliers included, the overall interaction of trial condition and measurement occasion was non-significant \(F(8, 95.6) = 1.51, p = .166\). With the outlying cases removed, differences in patterns of change between conditions over time remained non significant \(F(8, 93.6) = 1.29, p = .260\). Figure 4.11 shows the estimated marginal means for knowledge of medical treatments
across measurement occasions, both with and without the outlying cases included in the data.

**Figure 4.11** Estimated marginal means and standard errors (±1 SE) for knowledge of medical treatments

**Within group contrasts**

According to Table 4.26, planned contrasts revealed a significant improvement in literacy for medical treatments in participants in the Internet plus tracking condition from pre- to post-intervention. There were no significant changes in knowledge of medical treatments in any condition from pre-intervention to 6 month follow-up or from pre-intervention to 12 month follow-up.
Table 4.26 Within group contrast estimates and significance tests for knowledge of medical treatments

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>-.04</td>
<td>-.06</td>
<td>.16</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(102.9) = -.40$</td>
<td>$t(89.2) = -.48$</td>
<td>$t(57.8) = 1.21$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.69</td>
<td>.63</td>
<td>.23</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>.25</td>
<td>.01</td>
<td>.26</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(109.4) = 2.18$</td>
<td>$t(92.5) = .10$</td>
<td>$t(62.9) = 1.68$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.032</td>
<td>.92</td>
<td>.10</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>.08</td>
<td>.17</td>
<td>.12</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(104.4) = .85$</td>
<td>$t(90.1) = 1.57$</td>
<td>$t(62.7) = .98$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.40</td>
<td>.12</td>
<td>.33</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>.12</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(105.8) = 1.21$</td>
<td>$t(92.9) = 1.86$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.23</td>
<td>.07</td>
<td></td>
</tr>
</tbody>
</table>

Between group contrasts

At post-intervention, 6 month follow-up and 12 month follow-up, no significant differences were found between conditions in knowledge of medical treatments.
### Table 4.27 Between group contrast estimates and significance tests for knowledge of medical treatments

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>-.15</td>
<td>-.28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(104.4) = -1.15$</td>
<td>$t(91.1) = -1.66$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.26</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Contrast estimate</td>
<td>-.11</td>
<td>-.23</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(103.7) = -.88$</td>
<td>$t(89.7) = -1.42$</td>
<td>$t(60.3) = .18$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.38</td>
<td>.16</td>
<td>.86</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>Contrast estimate</td>
<td>.13</td>
<td>-.21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(108.4) = .88$</td>
<td>$t(93.1) = -1.18$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.38</td>
<td>.24</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td>Contrast estimate</td>
<td>.17</td>
<td>-.16</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(108.2) = 1.2$</td>
<td>$t(92.1) = -.93$</td>
<td>$t(63.2) = .69$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.23</td>
<td>.36</td>
<td>.49</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>-.04</td>
<td>-.05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(105.2) = -.32$</td>
<td>$t(91.7) = -.32$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.75</td>
<td>.75</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td>Contrast estimate</td>
<td>-.29</td>
<td>-.07</td>
<td>-.11</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(107.1) = -1.9$</td>
<td>$t(91.3) = -.40$</td>
<td>$t(61.1) = -.53$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.06</td>
<td>.70</td>
<td>.60</td>
</tr>
</tbody>
</table>

### 4.7.14 Effect sizes for knowledge of medical treatments

At post-intervention, effect sizes were 0.14 (95% CI: -0.40 to 0.68) for the Internet only condition and 0.11 (95% CI: -0.50 to 0.73) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.37 (95% CI: -0.15 to 0.89) for the Internet only condition and 0.33 (95% CI: -0.26 to 0.93) for the Internet plus tracking condition. With the outliers included in the analyses, the effect sizes for the Internet plus tracking condition were 0.14 (95% CI: -
0.45 to 0.73) compared with the control condition and 0.35 (95% CI: -0.23 to 0.93) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 0.08 (95% CI: -0.50 to 0.67) for the Internet only condition and 0.37 (95% CI: -0.26 to 1.00) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.33 (95% CI: -0.23 to 0.89) for the Internet only condition and 0.22 (95% CI: -0.38 to 0.82) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.38 (95% CI: -0.23 to 0.99) compared to the control condition and 0.22 (95% CI: -0.36 to 0.80) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.84 (95% CI: 0.21 to 1.47) for the Internet only condition and 0.15 (95% CI: -0.54 to 0.84) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.18 (95% CI: -0.49 to 0.86) compared to the tracking only condition.

### 4.7.15 Knowledge of psychological treatments

This outcome measured participants' knowledge of the evidence-base for psychological treatments for depression. For data with the outliers included, the overall interaction of trial condition and measurement occasion was significant ($F(8, 91.9) = 2.59, p = .013$). With the outlying cases removed, differences in patterns of change between conditions remained significant ($F(8, 91.6) = 2.55, p = .015$). Figure 4.12 shows the estimated marginal means for psychological treatment literacy across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.12 Estimated marginal means and standard errors (±1 SE) for knowledge of psychological treatments

Within group contrasts

Participants in the Internet only and Internet plus tracking conditions showed significant improvements in literacy for psychological treatments for depression from pre- to post-intervention. These improvements were maintained at 6 month follow-up. At 12 month follow-up, a significant improvement in knowledge of psychological treatments was found for participants in the Internet plus tracking condition.
### Table 4.28 Within group contrast estimates and significance tests for knowledge of psychological treatments

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>.48</td>
<td>.61</td>
<td>.50</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(105.0) = 2.18$</td>
<td>$t(103.6) = 2.27$</td>
<td>$t(63.1) = 1.58$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.032</td>
<td>.025</td>
<td>.12</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>.92</td>
<td>.70</td>
<td>.96</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(111.3) = 3.50$</td>
<td>$t(112.1) = 2.36$</td>
<td>$t(68.9) = 2.62$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.001</td>
<td>.020</td>
<td>.011</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-.01</td>
<td>-.02</td>
<td>-.27</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(102.0) = -.06$</td>
<td>$t(103.9) = -.07$</td>
<td>$t(70.0) = -.87$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.95</td>
<td>.95</td>
<td>.39</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>-.13</td>
<td>-.49</td>
<td>.39</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(108.7) = -.58$</td>
<td>$t(111.3) = -1.61$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.56</td>
<td>.11</td>
<td></td>
</tr>
</tbody>
</table>

**Between group contrasts**

As shown below in Table 4.29, participants in the Internet plus tracking condition showed greater improvement in knowledge of psychological treatments than participants in the control and tracking only conditions. At 6 month follow-up, participants in the Internet only and Internet plus tracking conditions showed significantly greater improvements in knowledge of psychological treatments than participants in the control condition. At 12 month follow-up, participants in the Internet plus tracking condition showed greater improvement in psychological treatment literacy than participants in the tracking only condition.
### Table 4.29 Between group contrast estimates and significance tests for knowledge of psychological treatments

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>.61</td>
<td>1.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(107.0) = 1.93)</td>
<td>(t(107.5) = 2.74)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.06</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Contrast estimate</td>
<td>.49</td>
<td>.63</td>
<td>.77</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(103.7) = 1.62)</td>
<td>(t(103.9) = 1.70)</td>
<td>(t(66.0) = 1.73)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.11</td>
<td>.10</td>
<td>.09</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>Contrast estimate</td>
<td>1.05</td>
<td>1.14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(111.8) = 3.04)</td>
<td>(t(112.5) = 2.82)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.003</td>
<td>.006</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td>Contrast estimate</td>
<td>.93</td>
<td>.71</td>
<td>1.23</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(109.6) = 2.79)</td>
<td>(t(109.8) = 1.82)</td>
<td>(t(69.7) = 2.55)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.006</td>
<td>.07</td>
<td>.013</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>.12</td>
<td>.43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(105.6) = .39)</td>
<td>(t(107.9) = 1.14)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.70</td>
<td>.26</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td>Contrast estimate</td>
<td>-.45</td>
<td>-.08</td>
<td>-.46</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(109.9) = -1.30)</td>
<td>(t(108.9) = -1.21)</td>
<td>(t(67.1) = -.95)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.20</td>
<td>.84</td>
<td>.35</td>
</tr>
</tbody>
</table>

### 4.7.16 Effect sizes for knowledge of psychological treatments

At post-intervention, effect sizes were 0.08 (95% CI: -0.46 to 0.61) for the Internet only condition and 0.17 (95% CI: -0.43 to 0.78) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.28 (95% CI: -0.23 to 0.80) for the Internet only condition and 0.39 (95% CI: -0.21 to 0.98) for the Internet plus tracking condition. With the outliers included in the analyses, the effect sizes for the Internet plus tracking condition were 0.14 (95% CI: -
0.44 to 0.73) compared with the control condition and 0.35 (95% CI: -0.23 to 0.92) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 0.52 (95% CI: -0.07 to 1.12) for the Internet only condition and 0.48 (95% CI: -0.15 to 1.11) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.53 (95% CI: -0.05 to 1.11) for the Internet only condition and 0.49 (95% CI: -0.12 to 1.11) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.55 (95% CI: -0.08 to 1.17) compared to the control condition and 0.56 (95% CI: -0.05 to 1.16) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.71 (95% CI: 0.09 to 1.34) for the Internet only condition and 0.85 (95% CI: 0.13 to 1.57) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.92 (95% CI: 0.21 to 1.63) compared to the tracking only condition.

4.7.17 Knowledge of alternative treatments

This outcome measured participants' knowledge of the evidence-base for alternative treatments for depression. For data with the outliers included, the overall interaction of trial condition and measurement occasion was significant ($F(8, 119.73) = 2.77, p = .008$). With the outlying cases removed, differences in patterns of change between conditions remained significant ($F(8, 115.9) = 2.67, p = .010$). Figure 4.13 shows the estimated marginal means for knowledge of alternative treatments across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.13 Estimated marginal means and standard errors (±1 SE) for knowledge of alternative treatments

Within group contrasts

As shown below in Table 4.30, planned contrasts revealed that participants in the Internet plus tracking condition showed significant improvement in literacy for alternative treatments for depression from pre- to post-intervention. A significant improvement in knowledge of alternative treatments was found in participants in the Internet only and Internet plus tracking conditions from pre-intervention to 6 month follow-up. There were no significant changes in literacy for alternative treatments in any condition from pre-intervention to 12 month follow-up.
Table 4.30 Within group contrast estimates and significance tests for knowledge of alternative treatments

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>.22</td>
<td>.43</td>
<td>.28</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(117.8) = 1.30$</td>
<td>$t(123.9) = 2.38$</td>
<td>$t(84.0) = 1.37$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.20</td>
<td>.019</td>
<td>.18</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>.48</td>
<td>.69</td>
<td>.30</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(124.6) = 2.48$</td>
<td>$t(122.3) = 3.60$</td>
<td>$t(84.7) = 1.27$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.015</td>
<td>&lt;.001</td>
<td>.21</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-.10</td>
<td>-.13</td>
<td>-.08</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(113.2) = -.62$</td>
<td>$t(115.2) = -.74$</td>
<td>$t(88.9) = -.41$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.53</td>
<td>.46</td>
<td>.67</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>-.07</td>
<td>-.28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(114.0) = -.43$</td>
<td>$t(119.6) = -1.53$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.67</td>
<td>.13</td>
<td></td>
</tr>
</tbody>
</table>

**Between group contrasts**

At post-intervention, participants in the Internet plus tracking condition showed greater improvement in knowledge of alternative treatments relative to participants in the control and tracking only conditions. At 6 month follow-up, knowledge of alternative treatments was significantly higher in participants in the Internet only condition compared with participants in the control and tracking only conditions. Participants in the Internet plus tracking condition also showed significantly higher knowledge of alternative treatments than participants in the control and tracking only conditions. At 12 month follow-up, there were no significant differences found between conditions for knowledge of alternative treatments.
Table 4.31 Between group contrast estimates and significance tests for knowledge of alternative treatments

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>.29</td>
<td>.71</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(115.9) = 1.22 )</td>
<td>( t(121.2) = 2.76 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.23</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Contrast estimate</td>
<td>.32</td>
<td>.56</td>
<td>.36</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(115.8) = 1.38 )</td>
<td>( t(120.0) = 2.24 )</td>
<td>( t(86.6) = 1.26 )</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.17</td>
<td>.027</td>
<td>.21</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>Contrast estimate</td>
<td>.55</td>
<td>.97</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(121.2) = 2.13 )</td>
<td>( t(121.8) = 3.66 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.035</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td>Contrast estimate</td>
<td>.58</td>
<td>.82</td>
<td>.38</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(121.8) = 2.30 )</td>
<td>( t(121.1) = 3.18 )</td>
<td>( t(87.6) = 1.23 )</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.023</td>
<td>.002</td>
<td>.22</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>-.03</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(113.7) = -.12 )</td>
<td>( t(117.1) = .62 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.91</td>
<td>.54</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td>Contrast estimate</td>
<td>-.25</td>
<td>-.26</td>
<td>-.02</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(122.6) = -.10 )</td>
<td>( t(84.0) = 1.37 )</td>
<td>( t(85.2) = -.05 )</td>
</tr>
<tr>
<td></td>
<td>p value</td>
<td>.32</td>
<td>.18</td>
<td>.96</td>
</tr>
</tbody>
</table>

4.7.18 Effect sizes for knowledge of alternative treatments

At post-intervention, effect sizes were 0.46 (95% CI: -0.09 to 1.00) for the Internet only condition and 0.71 (95% CI: 0.09 to 1.33) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.33 (95% CI: -0.18 to 0.85) for the Internet only condition and 0.61 (95% CI: 0.02 to 1.21) for the Internet plus tracking condition. With the outliers included in the
analyses, the effect sizes for the Internet plus tracking condition were 0.64 (95% CI: 0.05 to 1.24) compared with the control condition and 0.54 (95% CI: -0.03 to 1.12) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 1.10 (95% CI: 0.46 to 1.74) for the Internet only condition and 1.53 (95% CI: 0.82 to 2.25) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.82 (95% CI: 0.24 to 1.41) for the Internet only condition and 1.28 (95% CI: 0.63 to 1.93) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 1.54 (95% CI: 0.84 to 2.23) compared to the control condition and 1.27 (95% CI: 0.64 to 1.90) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.31 (95% CI: -0.31 to 0.93) for the Internet only condition and 0.39 (95% CI: -0.31 to 1.10) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.41 (95% CI: -0.28 to 1.10) compared to the tracking only condition.

4.7.19 Help seeking (use of evidence-based treatments)

This outcome measured the number of evidence-based treatments used by participants over the course of the trial. For data with the outliers included, the overall interaction of trial condition and measurement occasion was significant ($F(8, 102.65) = 2.40, p = .021$). With the outlying cases removed, differences in patterns of change between conditions remained significant ($F(8, 102.1) = 2.34, p = .024$). Figure 4.14 shows the estimated marginal means for help seeking across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.14 Estimated marginal means and standard errors (±1 SE) for help seeking

Within group contrasts

Planned contrasts revealed a significant increase in the number of evidence-based treatments used for depression in participants in the Internet plus tracking condition from pre- to post-intervention. Participants in the tracking only condition reported a significant decline in the number of evidence-based treatments for depression used from pre- to post-intervention. A significant decline in the number of evidence-based treatments used from pre-intervention to 6 month follow-up was observed in participants in the Internet only condition. Participants in the tracking only condition showed a significant decline in number of evidence-based treatments used from pre-intervention to 12 month follow-up.
Table 4.32 Within group contrast estimates and significance tests for help seeking

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>-.48</td>
<td>-1.00</td>
<td>-.78</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(108.5) = -1.87$</td>
<td>$t(104.1) = -3.02$</td>
<td>$t(69.3) = -1.90$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.06</td>
<td>.003</td>
<td>.06</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>.69</td>
<td>-.30</td>
<td>-.29</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(111.9) = 2.27$</td>
<td>$t(107.5) = -.83$</td>
<td>$t(70.2) = -.61$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.025</td>
<td>.41</td>
<td>.55</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-.74</td>
<td>-.58</td>
<td>-1.27</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(104.3) = -3.12$</td>
<td>$t(99.9) = -1.84$</td>
<td>$t(68.9) = -3.11$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.002</td>
<td>.07</td>
<td>.003</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>.01</td>
<td>-.53</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(107.2) = .03$</td>
<td>$t(103.5) = -1.54$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.97</td>
<td>.13</td>
<td></td>
</tr>
</tbody>
</table>

Between group contrasts

At post-intervention, participants in the Internet plus tracking condition showed a significant increase in the number of evidence-based treatments used compared to participants in the Internet only and tracking only conditions.

Participants in the tracking only condition showed a significant decline in the number of evidence-based treatments used relative to participants in the control condition. No significant differences were found between conditions in their use of evidence-based treatments at 6 or 12 month follow-up.
### Table 4.33 Between group contrast estimates and significance tests for help seeking

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>-.49</td>
<td>-.48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(107.9) = -1.34 )</td>
<td>( t(103.8) = -1.00 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.18</td>
<td>.32</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Contrast estimate</td>
<td>.26</td>
<td>-.42</td>
<td>.50</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(106.7) = .73 )</td>
<td>( t(102.3) = -.93 )</td>
<td>( t(69.1) = .86 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.46</td>
<td>.36</td>
<td>.40</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>Contrast estimate</td>
<td>.69</td>
<td>.23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(111.0) = 1.71 )</td>
<td>( t(106.5) = .46 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.09</td>
<td>.65</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td>Contrast estimate</td>
<td>1.43</td>
<td>.28</td>
<td>.98</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(110.7) = 3.71 )</td>
<td>( t(105.8) = .59 )</td>
<td>( t(71.0) = 1.55 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>&lt;.001</td>
<td>.56</td>
<td>.13</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>-.75</td>
<td>-.05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(106.0) = -2.13 )</td>
<td>( t(102.0) = -.12 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.04</td>
<td>.91</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td>Contrast estimate</td>
<td>-1.18</td>
<td>-.71</td>
<td>-.48</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(111.2) = -2.94 )</td>
<td>( t(106.7) = -1.44 )</td>
<td>( t(71.0) = -.76 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.004</td>
<td>.15</td>
<td>.45</td>
</tr>
</tbody>
</table>

### 4.7.20 Effect sizes for help seeking (use of evidence-based treatments)

At post-intervention, effect sizes were 0.39 (95% CI: -0.15 to 0.93) for the Internet only condition and 0.02 (95% CI: -0.58 to 0.61) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.34 (95% CI: -0.17 to 0.85) for the Internet only condition and 0.76 (95% CI: 0.17 to 1.36) for the Internet plus tracking condition. With the outliers included in the analyses, the effect sizes for the Internet plus tracking condition were 0.07 (95% CI: -
0.50 to 0.65) compared with the control condition and 0.83 (95% CI: 0.26 to 1.41) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 0.30 (95% CI: -0.29 to 0.89) for the Internet only condition and 0.04 (95% CI: -0.58 to 0.67) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.03 (95% CI: -0.52 to 0.59) for the Internet only condition and 0.40 (95% CI: -0.20 to 1.00) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.17 (95% CI: -0.44 to 0.77) compared to the control condition and 0.52 (95% CI: -0.07 to 1.11) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.47 (95% CI: -0.15 to 1.08) for the Internet only condition and 0.58 (95% CI: -0.13 to 1.28) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.70 (95% CI: 0.00 to 1.39) compared to the tracking only condition.

4.7.21 Stigma

For the stigma data with the outliers included, the overall interaction of trial condition and measurement occasion was non-significant \( (F/8, 98.0) = 1.83, p = .080 \). With the outlying cases removed, differences in patterns of change between conditions over time remained non-significant \( (F/8, 96.5) = 1.73, p = .101 \). Figure 4.15 shows the estimated marginal means for stigma across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.15 Estimated marginal means and standard errors (±1 SE) for stigma

Within group contrasts

As shown in Table 4.34, there was a significant decrease in depression stigma from pre- to post-intervention and from pre-intervention to 12 month follow-up in the Internet only condition. No other significant changes in stigma were observed.
Table 4.34 Within group contrast estimates and significance tests for stigma

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>-2.20</td>
<td>-1.70</td>
<td>-3.37</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(109.5) = -2.86)</td>
<td>(t(98.6) = -1.80)</td>
<td>(t(70.3) = -3.11)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.005</td>
<td>.08</td>
<td>.003</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>-0.23</td>
<td>-1.28</td>
<td>-2.05</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(113.6) = -.26)</td>
<td>(t(99.4) = -1.22)</td>
<td>(t(73.5) = -1.58)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.80</td>
<td>.23</td>
<td>.12</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-1.23</td>
<td>-1.68</td>
<td>-1.11</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(107.6) = -1.72)</td>
<td>(t(101.2) = -1.87)</td>
<td>(t(73.3) = -1.05)</td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.09</td>
<td>.07</td>
<td>.30</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>-.01</td>
<td>1.59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>(t(108.5) = -.01)</td>
<td>(t(99.0) = 1.66)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(p) value</td>
<td>.99</td>
<td>.10</td>
<td></td>
</tr>
</tbody>
</table>

*Between group contrasts*

At post-intervention, stigma was significantly lower in participants in the Internet only condition compared with participants in the control condition. At 6 month follow-up, participants in the Internet only, Internet plus tracking and tracking only conditions showed significantly lower levels of stigma than participants in the control condition. With the outliers included in the analysis, the contrast between the Internet plus tracking and control conditions was no longer significant. No significant differences in stigma were found between conditions at 12 month follow-up.
Table 4.35 Between group contrast estimates and significance tests for stigma

<table>
<thead>
<tr>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Contrast</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>-2.19</td>
<td>-3.29</td>
<td></td>
</tr>
<tr>
<td>Test value</td>
<td>( t(109.0) = -2.01 )</td>
<td>( t(98.7) = -2.44 )</td>
<td></td>
</tr>
<tr>
<td>( p ) value</td>
<td>.047</td>
<td>.017</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>-.97</td>
<td>-.02</td>
<td>-2.26</td>
</tr>
<tr>
<td>Test value</td>
<td>( t(108.8) = -.93 )</td>
<td>( t(100.0) = -.02 )</td>
<td>( t(71.9) = -1.50 )</td>
</tr>
<tr>
<td>( p ) value</td>
<td>.36</td>
<td>.99</td>
<td>.14</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>-.22</td>
<td>-2.88</td>
<td></td>
</tr>
<tr>
<td>Test value</td>
<td>( t(112.2) = -.19 )</td>
<td>( t(99.6) = -2.02 )</td>
<td></td>
</tr>
<tr>
<td>( p ) value</td>
<td>.85</td>
<td>.046*</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>.10</td>
<td>.40</td>
<td>-.95</td>
</tr>
<tr>
<td>Test value</td>
<td>( t(112.6) = .86 )</td>
<td>( t(100.9) = .29 )</td>
<td>( t(94.1) = -0.57 )</td>
</tr>
<tr>
<td>( p ) value</td>
<td>.39</td>
<td>.78</td>
<td>.57</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>-1.22</td>
<td>-3.27</td>
<td></td>
</tr>
<tr>
<td>Test value</td>
<td>( t(108.2) = -1.16 )</td>
<td>( t(100.0) = -2.48 )</td>
<td></td>
</tr>
<tr>
<td>( p ) value</td>
<td>.25</td>
<td>.015</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet + tracking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast estimate</td>
<td>-1.97</td>
<td>-4.2</td>
<td>-1.32</td>
</tr>
<tr>
<td>Test value</td>
<td>( t(112.4) = -1.65 )</td>
<td>( t(99.4) = -2.9 )</td>
<td>( t(72.8) = -0.78 )</td>
</tr>
<tr>
<td>( p ) value</td>
<td>.10</td>
<td>.77</td>
<td>.44</td>
</tr>
</tbody>
</table>

*Contrast was not significant when outliers were included in the analysis.

4.7.22 Effect sizes for stigma

At post-intervention, effect sizes were 0.94 (95% CI: 0.38 to 1.50) for the Internet only condition and 0.17 (95% CI: -0.42 to 0.77) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.96 (95% CI: 0.41 to 1.50) for the Internet only condition and 0.24 (95% CI: -0.34 to 0.82) for the Internet plus tracking condition. With the outliers included in the analyses, the effect sizes for the Internet plus tracking condition were 0.21 (95% CI: -
0.37 to 0.79) compared with the control condition and 0.28 (95% CI: -0.29 to 0.84) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 1.00 (95% CI: 0.37 to 1.62) for the Internet only condition and 0.70 (95% CI: 0.06 to 1.34) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.64 (95% CI: 0.06 to 1.22) for the Internet only condition and 0.34 (95% CI: -0.26 to 0.95) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.74 (95% CI: 0.12 to 1.37) compared to the control condition and 0.37 (95% CI: -0.22 to 0.96) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 1.10 (95% CI: 0.46 to 1.75) for the Internet only condition and 0.19 (95% CI: -0.50 to 0.88) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.23 (95% CI: -0.44 to 0.91) compared to the tracking only condition.

4.7.23 Depression literacy

For the depression literacy data with the outliers included, the overall interaction of trial condition and measurement occasion was non-significant ($F(8, 97.8) = 1.77, p = .093$). With the outlying cases removed, differences in patterns of change between conditions over time remained non-significant ($F(8, 96.5) = 1.75, p = .096$). Figure 4.16 shows the estimated marginal means for depression literacy across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.16 Estimated marginal means and standard errors (±1 SE) for depression literacy

Within group contrasts

Planned contrasts revealed a significant improvement in depression literacy from pre- to post-intervention in participants in the Internet only and Internet plus tracking conditions. Depression literacy significantly improved from pre-intervention to 6 month follow-up in participants in the Internet plus tracking condition. Participants in the Internet only and Internet plus tracking conditions showed significant improvements in depression literacy from pre-intervention to 12 month follow-up.
Table 4.36 Within group contrast estimates and significance tests for depression literacy

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post-intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>.93</td>
<td>.87</td>
<td>1.43</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(109.5) = 2.53 )</td>
<td>( t(98.3) = 1.93 )</td>
<td>( t(81.5) = 3.02 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.013</td>
<td>.06</td>
<td>.003</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>1.48</td>
<td>1.27</td>
<td>1.53</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(115.6) = 3.40 )</td>
<td>( t(99.1) = 2.55 )</td>
<td>( t(85.1) = 2.74 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.001</td>
<td>.012</td>
<td>.007</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-.14</td>
<td>.00</td>
<td>.37</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(106.6) = -.40 )</td>
<td>( t(100.8) = .00 )</td>
<td>( t(85.4) = .81 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.69</td>
<td>.10</td>
<td>.42</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>.32</td>
<td>-.38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(108.3) = .86 )</td>
<td>( t(98.7) = -.82 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.40</td>
<td>.41</td>
<td></td>
</tr>
</tbody>
</table>

*Between group contrasts*

At post-intervention, depression literacy was significantly higher among participants in the Internet plus tracking condition compared with participants in the control and tracking only conditions. Depression literacy was significantly higher in participants in the Internet only condition compared with participants in the tracking only condition. At 6 month follow-up, participants in the Internet plus tracking condition showed significantly higher depression literacy than participants in the control condition. No significant differences in depression literacy were found between conditions at 12 month follow-up.
Table 4.37 Between group contrast estimates and significance tests for depression literacy

<table>
<thead>
<tr>
<th>Contrasts</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>.61</td>
<td>1.24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(108.9) = 1.17 )</td>
<td>( t(98.5) = 1.94 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.24</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking only</td>
<td>Contrast estimate</td>
<td>1.07</td>
<td>.87</td>
<td>1.06</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(108.4) = 2.13 )</td>
<td>( t(99.6) = 1.40 )</td>
<td>( t(83.5) = 1.61 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.036</td>
<td>.17</td>
<td>.11</td>
</tr>
<tr>
<td>Internet + tracking vs Control</td>
<td>Contrast estimate</td>
<td>1.16</td>
<td>1.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(113.4) = 2.03 )</td>
<td>( t(99.5) = 2.42 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.045</td>
<td>.017</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs Tracking</td>
<td>Contrast estimate</td>
<td>1.61</td>
<td>1.27</td>
<td>1.15</td>
</tr>
<tr>
<td>only</td>
<td>Test value</td>
<td>( t(113.7) = 2.92 )</td>
<td>( t(100.8) = 1.93 )</td>
<td>( t(86.5) = 1.60 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.004</td>
<td>.06</td>
<td>.11</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>-.46</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>( t(107.6) = -.90 )</td>
<td>( t(99.7) = .60 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.37</td>
<td>.55</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet +</td>
<td>Contrast estimate</td>
<td>-.54</td>
<td>-.40</td>
<td>-.09</td>
</tr>
<tr>
<td>tracking</td>
<td>Test value</td>
<td>( t(113.7) = -.96 )</td>
<td>( t(99.2) = -.60 )</td>
<td>( t(84.4) = -.13 )</td>
</tr>
<tr>
<td></td>
<td>( p ) value</td>
<td>.34</td>
<td>.55</td>
<td>.90</td>
</tr>
</tbody>
</table>

4.7.24 Effect sizes for depression literacy

At post-intervention, effect sizes were 0.31 (95% CI: -0.23 to 0.85) for the Internet only condition and 0.01 (95% CI: -0.58 to 0.61) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.73 (95% CI: 0.19 to 1.26) for the Internet only condition and 0.37 (95% CI: -0.21 to 0.96) for the Internet plus tracking condition. With the outliers included in the analyses, the effect sizes for the Internet plus tracking condition were 0.06 (95% CI: -
0.52 to 0.64) compared with the control condition and 0.43 (95% CI: -0.14 to 0.99) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 0.26 (95% CI: -0.35 to 0.88) for the Internet only condition and 0.10 (95% CI: -0.54 to 0.74) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.60 (95% CI: 0.00 to 1.20) for the Internet only condition and 0.38 (95% CI: -0.24 to 0.99) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.23 (95% CI: -0.40 to 0.86) compared to the control condition and 0.53 (95% CI: -0.08 to 1.15) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.73 (95% CI: 0.06 to 1.39) for the Internet only condition and 0.00 (95% CI: -0.71 to 0.71) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.21 (95% CI: -0.50 to 0.93) compared to the tracking only condition.

4.7.25 Cognitive behaviour therapy literacy

For the cognitive behaviour therapy literacy data with the outliers included, the overall interaction of trial condition and measurement occasion was significant ($F(8, 103.68) = 6.02, p = <.001$). With the outlying cases removed, differences in patterns of change between conditions remained significant ($F(8, 101.9) = 6.29, p = <.001$). Figure 4.17 shows the estimated marginal means for cognitive behaviour therapy (CBT) literacy across measurement occasions, both with and without the outlying cases included in the data.
Figure 4.17 Estimated marginal means and standard errors (±1 SE) for cognitive behaviour therapy literacy

Within group contrasts

As shown below in Table 4.38, participants in the Internet only and Internet plus tracking conditions showed significant improvement in CBT literacy from pre- to post-intervention. Participants in the tracking only condition showed a significant decline in CBT literacy from pre- to post-intervention. Significant improvements were also found in these conditions from pre-intervention to 6 month follow-up, and pre-intervention to 12 month follow-up.
Table 4.38 Within group contrast estimates and significance tests for cognitive behaviour therapy literacy

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statistic</th>
<th>Pre-intervention to post- intervention</th>
<th>Pre-intervention to 6 month follow-up</th>
<th>Pre-intervention to 12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>Contrast estimate</td>
<td>1.08</td>
<td>1.10</td>
<td>1.66</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(114.0) = 3.84$</td>
<td>$t(104.8) = 3.42$</td>
<td>$t(77.7) = 4.68$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>&lt;.001</td>
<td>.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Internet + tracking</td>
<td>Contrast estimate</td>
<td>1.77</td>
<td>1.57</td>
<td>1.65</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(124.1) = 5.49$</td>
<td>$t(107.8) = 4.45$</td>
<td>$t(78.1) = 3.91$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Contrast estimate</td>
<td>-.79</td>
<td>-.39</td>
<td>-.26</td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(108.1) = -2.98$</td>
<td>$t(103.0) = -1.27$</td>
<td>$t(80.6) = -.76$</td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.004</td>
<td>.21</td>
<td>.45</td>
</tr>
<tr>
<td>Control</td>
<td>Contrast estimate</td>
<td>-.02</td>
<td>-.15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td>$t(111.9) = -.07$</td>
<td>$t(104.7) = -.44$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$p$ value</td>
<td>.94</td>
<td>.66</td>
<td></td>
</tr>
</tbody>
</table>

Between group contrasts

At post-intervention, participants in the Internet only and Internet plus tracking conditions showed greater improvements in CBT literacy than participants in the control and tracking only conditions. At 6 month follow-up, the same pattern of results was observed. CBT literacy was significantly higher in participants in the Internet only and Internet plus tracking conditions compared with participants in the control and tracking only conditions. Participants in the Internet plus tracking condition also showed significantly higher CBT literacy than participants in the control and tracking only conditions. At 12 month follow-up, participants in the Internet only and Internet plus tracking showed significantly higher CBT literacy than participants in the tracking only condition.
Table 4.39 Between group contrast estimates and significance tests for cognitive behaviour therapy literacy

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Measurement occasion</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet only vs Control</td>
<td>Contrast estimate</td>
<td>1.10</td>
<td>1.24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td><em>t</em>(112.9) = 2.75</td>
<td><em>t</em>(104.8) = 2.71</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>.007</td>
<td>.008</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Tracking</td>
<td>Contrast estimate</td>
<td>1.87</td>
<td>1.49</td>
<td>1.93</td>
</tr>
<tr>
<td>only</td>
<td>Test value</td>
<td><em>t</em>(111.5) = 4.84</td>
<td><em>t</em>(104.2) = 3.36</td>
<td><em>t</em>(79.2) = 3.87</td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>&lt;.001</td>
<td>.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Internet + tracking vs</td>
<td>Contrast estimate</td>
<td>1.79</td>
<td>1.71</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Test value</td>
<td><em>t</em>(120.1) = 4.17</td>
<td><em>t</em>(107.4) = 3.56</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>&lt;.001</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Internet + tracking vs</td>
<td>Contrast estimate</td>
<td>2.56</td>
<td>1.96</td>
<td>1.91</td>
</tr>
<tr>
<td>Tracking only</td>
<td>Test value</td>
<td><em>t</em>(119.9) = 6.14</td>
<td><em>t</em>(107.5) = 4.19</td>
<td><em>t</em>(80.5) = 3.49</td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>.001</td>
</tr>
<tr>
<td>Tracking only vs Control</td>
<td>Contrast estimate</td>
<td>-.77</td>
<td>-.24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test value</td>
<td><em>t</em>(110.2) = -1.99</td>
<td><em>t</em>(104.1) = -.54</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>.05</td>
<td>.59</td>
<td></td>
</tr>
<tr>
<td>Internet only vs Internet</td>
<td>Contrast estimate</td>
<td>-.69</td>
<td>-.47</td>
<td>.02</td>
</tr>
<tr>
<td>+ tracking</td>
<td>Test value</td>
<td><em>t</em>(120.7) = 1.62</td>
<td><em>t</em>(107.2) = -.98</td>
<td><em>t</em>(78.9) = .03</td>
</tr>
<tr>
<td></td>
<td><em>p</em> value</td>
<td>.11</td>
<td>.33</td>
<td>.98</td>
</tr>
</tbody>
</table>

4.7.26 Effect sizes for cognitive behaviour therapy literacy

At post-intervention, effect sizes were 0.71 (95% CI: 0.16 to 1.26) for the Internet only condition and 0.80 (95% CI: 0.18 to 1.42) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.92 (95% CI: 0.37 to 1.46) for the Internet only condition and 1.03 (95% CI: 0.41 to 1.64) for the Internet plus tracking condition. With the outliers included in the
analyses, the effect sizes for the Internet plus tracking condition were 0.80 (95% CI: 0.20 to 1.40) compared with the control condition and 1.03 (95% CI: 0.43 to 1.63) compared with the tracking only condition.

At 6 month follow-up, effect sizes were 0.87 (95% CI: 0.23 to 1.50) for the Internet only condition and 0.81 (95% CI: 0.15 to 1.47) for the Internet plus tracking condition, compared to the control condition. Compared to tracking only, effect sizes were 0.85 (95% CI: 0.25 to 1.45) for the Internet only condition and 0.80 (95% CI: 0.17 to 1.24) for the Internet plus tracking condition. With the outliers included in the analyses, effect sizes for the Internet plus tracking condition were 0.73 (95% CI: 0.09 to 1.37) compared to the control condition and 0.72 (95% CI: 0.11 to 1.32) compared to the tracking only condition.

At 12 month follow-up, effect sizes were 0.97 (95% CI: 0.33 to 1.61) for the Internet only condition and 0.54 (95% CI: -0.17 to 1.24) for the Internet plus tracking condition, compared with the tracking only condition. With the outliers included in the analyses, the effect size for the Internet plus tracking condition was 0.59 (95% CI: -0.10 to 1.28) compared to the tracking only condition.

4.7.27 Disablement

Disablement was assessed using two items designed to measure the extent of disability experienced by participants due to emotional problems. The first item assessed disability in terms of reduced productivity, and the second item measured disability in terms of reduced carefulness in performing daily tasks.
Reduced productivity

Table 4.40 shows numbers of participants in each condition, at each measurement occasion, who indicated that they had accomplished less than they would like due to emotional problems. The outliers were excluded from these results.

**Table 4.40** Number of participants in each condition indicating that they accomplished less than they would like due to emotional problems

<table>
<thead>
<tr>
<th></th>
<th>Pre-intervention</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>33 (86.8%)</td>
<td>18 (69.2%)</td>
<td>12 (52.2%)</td>
<td>9 (42.9%)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>37 (86.0%)</td>
<td>12 (75.0%)</td>
<td>16 (88.9%)</td>
<td>8 (61.5%)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>32 (88.9%)</td>
<td>24 (72.7%)</td>
<td>21 (80.8%)</td>
<td>18 (81.8%)</td>
</tr>
<tr>
<td>Control</td>
<td>30 (85.7%)</td>
<td>22 (81.5%)</td>
<td>17 (77.3%)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

At pre-intervention, 86.8% of participants in the Internet only and 86.0% of participants in the Internet plus tracking condition indicated that emotional problems had negatively affected their productivity in the past four weeks. At post-intervention, these percentages declined to 69.2% in the Internet only condition and 75.0% in the Internet plus tracking condition. A similar decline of 16.2% was observed in participants in the tracking only condition. A logistic regression analysis was used to examine if treatment condition was a significant predictor of disablement, as indicated by endorsement of the item ‘During the past 4 weeks, have you accomplished less than you would like as a result of any emotional problems (such as feeling depressed or anxious)?’ Analysis revealed that treatment condition did not significantly predict reduced productivity as a result of emotional problems at post-intervention. This
result was consistent with the outliers included in the analysis. Table 4.41 shows the results of the regression analysis.

**Table 4.41** Treatment condition as a predictor of reduced productivity due to emotional problems at post-intervention

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Odds ratio</th>
<th>P value</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention condition (Internet only)</td>
<td>.51</td>
<td>.30</td>
<td>.14</td>
<td>1.84</td>
</tr>
<tr>
<td>Intervention condition (Internet plus tracking)</td>
<td>.68</td>
<td>.62</td>
<td>.15</td>
<td>3.03</td>
</tr>
<tr>
<td>Intervention condition (Tracking only)</td>
<td>.61</td>
<td>.43</td>
<td>.18</td>
<td>2.09</td>
</tr>
</tbody>
</table>

*Reference group = control condition

At 6 month follow-up, the percentage of participants reporting lowered productivity as a result of emotional problems further declined to 52.2% in the Internet only condition. However, increased percentages of participants in the Internet plus tracking and tracking only conditions reported lowered productivity (88.9% and 80.8% respectively). Logistic regression analyses (as shown in Table 4.42) revealed that treatment condition did not significantly predict reduced productivity as a result of emotional problems at 6 month follow-up. However, one predictive relationship approached significance. Participants in the Internet only condition were less likely than participants in the control condition to indicate decreased productivity as a result of emotional problems at 6 month follow-up. A similar result was obtained with the outliers included in the analysis.
Table 4.42 Treatment condition as a predictor of reduced productivity due to emotional problems at 6 month follow-up

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Odds ratio</th>
<th>P value</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention condition (Internet only)</td>
<td>.32</td>
<td>.08</td>
<td>.09</td>
<td>1.17</td>
</tr>
<tr>
<td>Intervention condition (Internet plus tracking)</td>
<td>2.35</td>
<td>.36</td>
<td>.40</td>
<td>13.90</td>
</tr>
<tr>
<td>Intervention condition (Tracking only)</td>
<td>1.24</td>
<td>.77</td>
<td>.31</td>
<td>4.98</td>
</tr>
</tbody>
</table>

*Reference group = control condition

At 12 month follow-up, percentages of participants in the Internet only and Internet plus tracking conditions reporting lowered productivity were reduced to 42.9% and 61.5% respectively. Logistic regression analyses (as shown in Table 4.43) revealed that relative to participants in the tracking only condition, participants in the Internet only condition were less likely to report lowered productivity due to emotional problems at 12 month follow-up. A similar result was obtained with the outliers included in the analysis.

Table 4.43 Treatment condition as a predictor of reduced productivity due to emotional problems at 12 month follow-up

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Odds ratio</th>
<th>P value</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention condition (Internet only)</td>
<td>.17</td>
<td>.01</td>
<td>.04</td>
<td>.67</td>
</tr>
<tr>
<td>Intervention condition (Internet plus tracking)</td>
<td>.36</td>
<td>.19</td>
<td>.08</td>
<td>1.69</td>
</tr>
</tbody>
</table>

*Reference group = tracking only condition
Reduced care with work or other activities

Table 4.44 shows numbers of participants in each condition, at each measurement occasion, who indicated that they did not complete work or other activities as carefully as usual due to emotional problems. The outliers were excluded from these results.

Table 4.44 Number of participants in each condition indicating that they did not complete work or other activities as carefully as usual due to emotional problems

<table>
<thead>
<tr>
<th></th>
<th>Pre-intervention</th>
<th>Post-intervention</th>
<th>6 month follow-up</th>
<th>12 month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet only</td>
<td>25 (65.8%)</td>
<td>17 (63.0%)</td>
<td>10 (43.5%)</td>
<td>8 (40.0%)</td>
</tr>
<tr>
<td>Internet plus tracking</td>
<td>29 (69.0%)</td>
<td>7 (43.8%)</td>
<td>9 (50.0%)</td>
<td>4 (30.8%)</td>
</tr>
<tr>
<td>Tracking only</td>
<td>28 (77.8%)</td>
<td>21 (63.6%)</td>
<td>12 (46.2%)</td>
<td>14 (63.6%)</td>
</tr>
<tr>
<td>Control</td>
<td>22 (62.9%)</td>
<td>22 (81.5%)</td>
<td>14 (66.7%)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

At pre-intervention, 65.8% of participants in the Internet only and 69.0% of participants in the Internet plus tracking condition indicated that emotional problems had negatively affected their ability to complete work or other activities as carefully as usual. At post-intervention, these percentages declined to 63.0% in the Internet only condition and 43.8% in the Internet plus tracking condition. A decline of 14.2% was observed in participants in the tracking only condition. A logistic regression analysis was used to examine if treatment condition was a significant predictor of disablement, as indicated by endorsement of the item ‘During the past 4 weeks, did you not do work or other activities as carefully as usual as a result of any emotional problems (such as feeling depressed or anxious)?’ Table 4.45 shows the results of the
regression analysis. Analysis revealed that relative to participants in the control condition, participants in the Internet plus tracking condition were less likely to report decreased carefulness in work and other activities due to emotional problems at post-intervention. A similar result was obtained with the outliers included in the analysis.

**Table 4.45** Treatment condition as a predictor of decreased carefulness due to emotional problems at post-intervention

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Odds ratio</th>
<th>P value</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention condition (Internet only)</td>
<td>.39</td>
<td>.14</td>
<td>.11</td>
<td>1.34</td>
</tr>
<tr>
<td>Intervention condition (Internet plus tracking)</td>
<td>.18</td>
<td>.01</td>
<td>.04</td>
<td>.71</td>
</tr>
<tr>
<td>Intervention condition (Tracking only)</td>
<td>.40</td>
<td>.13</td>
<td>.12</td>
<td>1.32</td>
</tr>
</tbody>
</table>

*Reference group = control condition

At 6 month follow-up, the percentage of participants reporting that they were less careful in work and other activities as a result of emotional problems further declined to 43.5% in the Internet only condition. However, an increased percentage of participants in the Internet plus tracking condition reported less carefulness (50.0%). Logistic regression analyses (as shown in Table 4.46) revealed that allocation to treatment condition did not significantly predict decreased carefulness in completing work or other activities as a result of emotional problems at 6 month follow-up. A similar result was obtained with the outliers included in the analysis.
Table 4.46  Treatment condition as a predictor of decreased carefulness due to emotional problems at 6 month follow-up

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Odds ratio</th>
<th>P value</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention condition (Internet only)</td>
<td>.39</td>
<td>.13</td>
<td>.11</td>
<td>1.31</td>
</tr>
<tr>
<td>Intervention condition (Internet plus tracking)</td>
<td>.50</td>
<td>.29</td>
<td>.14</td>
<td>1.83</td>
</tr>
<tr>
<td>Intervention condition (Tracking only)</td>
<td>.43</td>
<td>.16</td>
<td>.13</td>
<td>1.41</td>
</tr>
</tbody>
</table>

*Reference group = control condition

At 12 month follow-up, percentages of participants in the Internet only and Internet plus tracking conditions reporting less carefulness in work and other activities were reduced to 40.0% and 30.8% respectively. Logistic regression analyses (as shown in Table 4.47) revealed that allocation to treatment condition did not significantly predict decreased carefulness in completed work or other activities as a result of emotional problems at 12 month follow-up. However, one finding approached significance. Compared to participants in the tracking only condition, participants in the Internet plus tracking condition were less likely to report decreased carefulness at 12 month follow-up.

Table 4.47  Treatment condition as a predictor of decreased carefulness due to emotional problems at 12 month follow-up

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Odds ratio</th>
<th>P value</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention condition (Internet only)</td>
<td>.38</td>
<td>.13</td>
<td>.11</td>
<td>1.33</td>
</tr>
<tr>
<td>Intervention condition (Internet plus tracking)</td>
<td>.25</td>
<td>.07</td>
<td>.06</td>
<td>1.08</td>
</tr>
</tbody>
</table>

*Reference group = tracking only condition
4.8 Program adherence

4.8.1 Adherence to the intervention

Adherence to the intervention was assessed in participants allocated to the Internet only and Internet plus tracking conditions. Adherence to BluePages was measured by the number of visits to the site and average visit duration (in minutes). Participants in the Internet only condition visited the BluePages website an average of 2.2 times, with an average visit duration of 7.4 minutes. Participants in the Internet plus tracking condition visited BluePages an average of 1 time, with a mean visit duration of 3.7 minutes. No significant differences were found in average number of BluePages visits \( t(81) = .388, p = .70 \) or average duration of visits \( t(81) = .728, p = .47 \) between participants in the Internet only and Internet plus tracking conditions.

Adherence to MoodGYM was assessed by the number of modules of the program that participants completed. Table 4.48 shows the number of MoodGYM modules completed by participants in the Internet only and Internet plus tracking conditions. Just over one quarter of participants in the Internet only (15.8%) and Internet plus tracking (17.8%) conditions completed all five modules of the MoodGYM program. Half of participants in the Internet only condition and approximately one third of participants in the Internet plus tracking program did not complete any modules of the program. Participants in the Internet only condition completed an average of 1.5 (SD = 1.89) MoodGYM modules while participants in the Internet plus tracking condition completed an average of 2.0 modules (SD = 1.88). There was no significant difference between the number of MoodGYM modules completed by participants in the Internet only and Internet plus tracking conditions \( t(81) = -1.17, p = .25 \).
Table 4.48 Number of MoodGYM modules completed by participants in the Internet only and Internet plus tracking conditions

<table>
<thead>
<tr>
<th>Number of modules completed</th>
<th>Internet only (n = 38)</th>
<th>Internet plus tracking (n=45)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>19 (50.0%)</td>
<td>14 (31.1%)</td>
</tr>
<tr>
<td>1</td>
<td>6 (15.8%)</td>
<td>8 (17.8%)</td>
</tr>
<tr>
<td>2</td>
<td>1 (2.6%)</td>
<td>6 (13.3%)</td>
</tr>
<tr>
<td>3</td>
<td>3 (7.9%)</td>
<td>5 (11.1%)</td>
</tr>
<tr>
<td>4</td>
<td>3 (7.9%)</td>
<td>4 (8.8%)</td>
</tr>
<tr>
<td>5</td>
<td>6 (15.8%)</td>
<td>8 (17.8%)</td>
</tr>
</tbody>
</table>

4.9 Satisfaction with the intervention and impact on Lifeline use

4.9.1 Intervention feedback

Overall, the website programs were positively received and perceived as helpful by participants in the trial. At post-intervention, 73.2% of participants indicated that they found the website programs either ‘very easy’ or ‘easy’ to understand. 85.4% of participants indicated that they learned ‘a great deal’ or ‘a fair bit’ from the programs. 90.2% of participants rated the programs as ‘very useful’ or ‘useful’. In terms of behaviour change, over half of participants (57.1%) indicated that they had ‘done something differently’ after visiting the BluePages website. 23.7% of participants indicated that they had sought more information about depression, 42.1% said that they had tried a self-help treatment, 13.2% reported that they has sought help from a health professional, and 18.4% said that they had provided advice about depression to someone else. 67.4% of participants reported
that they would use the websites again in the future and 95.2% indicated that they would recommend the websites to others.

At 6 month follow-up, the same proportion of participants at post-intervention (57.1%) indicated that they had changed their behaviour after visiting the BluePages website. In the time since visiting BluePages, 40% of participants indicated that they had sought more information, 40% indicated that they had tried a self-help treatment, 24% indicated that they had sought help from a health professional, and 16% indicated that they had provided advice about depression to someone else. 26.8% of participants reported that they had re-visited either MoodGYM or BluePages since their initial participation in the intervention and 47.6% indicated that they would use the websites again in the future. Almost half of participants (42.9%) reported that they had recommended the websites to others.

At 12 month follow-up, just over half of participants (55.9%) indicated that they had done something different since their initial visit to the BluePages website. 18.5% indicted that they had sought more information, 37% reported that they had tried a self-help treatment, 11.1% reported that they had sought help from a health professional and 29.6% indicated that they had provided advice about depression to someone else. 26.5% of participants reported that they had re-visited the websites, and 38.2% indicated that they plan to visit the websites again in the future. 61.8% of participants reported that they had recommended the websites to others.

4.9.2 Lifeline use

Table 4.49 presents the self-reported number of times that participants in each treatment condition called Lifeline in the past month at each measurement occasion.
<table>
<thead>
<tr>
<th></th>
<th>Internet only</th>
<th>Internet plus tracking</th>
<th>Tracking only</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-intervention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1 (2.6%)</td>
<td>1 (2.2%)</td>
<td>1 (2.7%)</td>
<td>1 (2.9%)</td>
</tr>
<tr>
<td>1-2 times</td>
<td>21 (55.3%)</td>
<td>24 (53.3%)</td>
<td>19 (51.4%)</td>
<td>15 (42.9%)</td>
</tr>
<tr>
<td>3-10 times</td>
<td>10 (26.3%)</td>
<td>12 (26.7%)</td>
<td>13 (35.1%)</td>
<td>14 (40%)</td>
</tr>
<tr>
<td>11 times or more</td>
<td>6 (15.8%)</td>
<td>8 (17.7%)</td>
<td>4 (10.8%)</td>
<td>5 (14.3%)</td>
</tr>
<tr>
<td><strong>Post-intervention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>12 (44.4%)</td>
<td>7 (35.0%)</td>
<td>14 (42.4%)</td>
<td>6 (22.2%)</td>
</tr>
<tr>
<td>1-2 times</td>
<td>9 (33.3%)</td>
<td>7 (35.0%)</td>
<td>9 (27.3%)</td>
<td>6 (22.2%)</td>
</tr>
<tr>
<td>3-10 times</td>
<td>3 (11.1%)</td>
<td>4 (20.0%)</td>
<td>8 (24.2%)</td>
<td>13 (48.1%)</td>
</tr>
<tr>
<td>11 times or more</td>
<td>3 (11.1%)</td>
<td>2 (10.0%)</td>
<td>2 (6.1%)</td>
<td>2 (7.4%)</td>
</tr>
<tr>
<td><strong>6 month follow-up</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>15 (65.2%)</td>
<td>10 (50.0%)</td>
<td>13 (48.1%)</td>
<td>7 (31.8%)</td>
</tr>
<tr>
<td>1-2 times</td>
<td>5 (21.7%)</td>
<td>5 (25.0%)</td>
<td>9 (33.3%)</td>
<td>5 (22.7%)</td>
</tr>
<tr>
<td>3-10 times</td>
<td>1 (4.3%)</td>
<td>1 (5.0%)</td>
<td>5 (18.5%)</td>
<td>8 (36.4%)</td>
</tr>
<tr>
<td>11 times or more</td>
<td>2 (8.7%)</td>
<td>4 (20.0%)</td>
<td>0 (0.0%)</td>
<td>2 (9.1%)</td>
</tr>
<tr>
<td><strong>12 month follow-up</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>14 (66.7%)</td>
<td>9 (64.3%)</td>
<td>12 (54.5%)</td>
<td>N/A</td>
</tr>
<tr>
<td>1-2 times</td>
<td>4 (19.1%)</td>
<td>2 (14.3%)</td>
<td>3 (13.6%)</td>
<td>N/A</td>
</tr>
<tr>
<td>3-10 times</td>
<td>1 (4.8%)</td>
<td>1 (7.1%)</td>
<td>5 (22.7%)</td>
<td>N/A</td>
</tr>
<tr>
<td>11 times or more</td>
<td>2 (9.1%)</td>
<td>2 (14.3%)</td>
<td>2 (9.1%)</td>
<td>N/A</td>
</tr>
</tbody>
</table>
At pre-intervention, a majority of participants in each condition reported having called Lifeline either once or twice in the past month. At post-intervention, Lifeline use declined in participants in the Internet only and tracking only conditions, with larger proportions of participants in these conditions reporting having not used Lifeline at all in the past month. Equal proportions of participants in the Internet plus tracking condition reported having not used Lifeline and having used Lifeline either once or twice in the past month. In the control condition, a majority of participants still reported having used Lifeline at least three or more times in the past month. At 6 month follow-up, a majority of participants in the Internet only and Internet plus tracking conditions reported having not called Lifeline in the past month. Use of Lifeline in control group participants was more evenly spread between no use, one to two phone calls and three to 10 phone calls. At 12 month follow-up, 66.7% of participants in the Internet only condition, 64.3% of participants in the Internet plus tracking condition, and 54.5% of participants in the tracking only condition reported not having used Lifeline in the past month.

Logistic regression analyses were used to examine the association between treatment condition and Lifeline use at post-intervention, 6 month follow-up and 12 month follow-up. Lifeline use data were dichotomised into the following categories: ‘minimal Lifeline use’ (No calls or 1-2 calls) and ‘frequent Lifeline use’ (3 or more calls). Analyses revealed that at post-intervention, participants in the Internet only condition were less likely than participants in the control condition to be a ‘frequent’ user of Lifeline (odd ratio .23, 95% CI: .07 to .75, p = .014). The decreased likelihood of being a ‘frequent’ user of Lifeline approached significance for participants in the Internet plus tracking (odds ratio .34, 95% CI: .10 to 1.16, p = .086) and tracking only (odds ratio .35, 95% CI: .12 to 1.01, p = .051) conditions. At 6 month follow-up, participants in the Internet only (odds ratio .18, 95% CI: .04 to .79, p = .023) and
tracking only (odds ratio .27, 95% CI: .08 to .98, p = .047) were significantly less likely to be a frequent user of Lifeline than participants in the control condition. At 12 month follow-up, there were no significant differences between conditions in the likelihood of being a ‘frequent’ Lifeline caller.

4.10 Telephone counsellor feedback survey

595 telephone counsellors were involved in recruiting participants into the trial, of whom, 95 (16%) completed the telephone counsellor feedback survey. The length of time worked as a telephone counsellor ranged from 2 months to 25 years, with an average of 3.5 years (SD = 4.05). 5.9% of respondents reported that they did not provide any invitations to callers to participate in the trial, 19.1% indicated that they provided an invitation less than 5 times, 20.6% reported providing an invitation less than once per shift, 38.2% indicated providing 1 to 2 invitations per shift, 10.3% reported providing 3 or more invitations per shift, and 2.9% reported providing an invitation for most of the calls they received during the recruitment period. Of those who did provide invitations to callers to participate, 51.5% of respondents reported that the experience was positive, 37.9% reported that it was neutral, and 10.6% reported that the experience was negative.

Table 4.50 lists the percentages of respondents who indicated the following as their one main reason for not providing a caller with an invitation to participate in the trial.
Table 4.50 Main reasons given by telephone counsellors for not inviting callers to participate in the trial

<table>
<thead>
<tr>
<th>Reasons for not providing a recruitment invitation</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I did not feel that the callers I spoke to were appropriate for an invitation</td>
<td>40.5</td>
</tr>
<tr>
<td>I forgot to ask the caller</td>
<td>25.0</td>
</tr>
<tr>
<td>I got sick of asking because none of the callers I asked were interested or had access to the Internet</td>
<td>10.7</td>
</tr>
<tr>
<td>I felt that asking the questions would impact negatively on the relationship between myself and the caller</td>
<td>7.1</td>
</tr>
<tr>
<td>I felt too uncomfortable or awkward to ask the questions</td>
<td>6.0</td>
</tr>
<tr>
<td>I felt like I didn’t understand the project well enough</td>
<td>4.8</td>
</tr>
<tr>
<td>I forgot to submit the online invitation</td>
<td>1.2</td>
</tr>
<tr>
<td>I think the aims of the project are not in line with the aims of the crisis line</td>
<td>1.2</td>
</tr>
<tr>
<td>I didn't know how to provide an invitation</td>
<td>1.2</td>
</tr>
</tbody>
</table>

The most commonly endorsed reason for not providing an invitation was feeling that it was inappropriate to provide an invitation given the nature of the call or the caller. This was followed by forgetting to ask the caller, and frustration or boredom with the recruitment process given lack of interest or ineligibility on the part of the caller.

In a paper based on the current study, a series of logistic regression analyses were used to examine predictors of whether each reason for not recruiting callers was at least partially endorsed or not endorsed by respondents (Burgess et al., 2010). The five response categories for each reason were collapsed into the following dichotomous variable: ‘Did not apply’ and ‘Applied at least some of the time or more’. The following predictor variables were examined: length of the ECCO trial
recruitment period (‘long (14 months)’ and ‘short (3-4 months)’), presence of an on-site trial manager (‘yes’ and ‘no’) and years of telephone counselling experience.

Counsellors who were recruiting in a centre with an on-site trial manager were less likely to endorse the reason ‘I did not know how to provide an invitation’ (OR = 0.20, 95% CI: 0.05 to 0.78, p = .02). Counsellors at centres involved in longer recruitment periods were more likely to endorse the following reason: ‘I think the aims of the project are not in line with the aims of the crisis line’ (OR = 7.5, 95% CI: 1.4 to 41.1, p = .02).
CHAPTER 5 – THE ECCO TRIAL: DISCUSSION

5.1 Effect of the intervention on primary outcomes

The aim of the trial was to examine the effectiveness of an Internet-based CBT intervention for depression in users of telephone counselling services. With regard to the primary outcomes (depression and anxiety symptoms), it was hypothesised that:

a. The delivery of an Internet-based CBT program will be more effective in reducing symptoms of depression and anxiety than a wait-list control condition (i.e. The Internet intervention will be effective independently of whether it involves telephone tracking or not).

b. Telephone tracking alone will be less effective than the conditions involving the Internet intervention, but more effective than the wait-list control condition.

c. Telephone tracking in conjunction with the Internet intervention will be more effective than the Internet intervention alone.

d. Adherence to the Internet intervention will be higher in participants who received telephone tracking than participants who completed the Internet intervention alone.

e. Any reductions in symptoms in participants who received the Internet intervention will be maintained at 6 and 12 month follow-up.

5.1.1 Depression

Results of the trial showed support for hypotheses (a) and (e) when the outliers were excluded from the analyses. Significant reductions in depressive symptoms from pre- to post-intervention were found in participants who received the Internet intervention, both with and without telephone tracking. At post-intervention, the
Internet only and Internet plus tracking interventions were superior to the control condition, and the Internet plus tracking condition was also superior to the tracking only condition. Within group declines in both Internet intervention conditions from pre- to post-intervention were maintained at 6 and 12 month follow-up. At 6 months, Internet CBT with and without telephone tracking was superior to the control condition. At 12 months, the Internet only intervention was superior to the tracking only condition.

The intervention was also found to significantly reduce the odds of clinical depression caseness. At post-intervention, the odds of clinical caseness in participants in the Internet plus tracking condition were significantly reduced, relative to participants in the control condition. At 6 month follow up, numbers of participants meeting the criteria for clinical caseness on the CES-D were halved in those who received the Internet only and Internet plus tracking interventions, compared to those in the control condition.

The effect sizes associated with the Internet intervention conditions were large, with effects at post-intervention and 6 months equal to those reported for face-to-face clinician delivered CBT programs for depression (Butler, Chapman, Forman, & Beck, 2006) and online CBT programs delivered by professionals (Andrews et al., 2010). The effect sizes exceeded those previously reported for the MoodGYM and BluePages programs (Christensen et al., 2004a). Effects were also larger than any previously reported effect sizes across 13 RCTs comparing Internet interventions to wait-list, treatment as usual or placebo control conditions for depression (Andersson et al., 2005; Christensen et al., 2004a; Clarke et al., 2005; Clarke et al., 2009; Clarke et al., 2002; de Graaf et al., 2009a; Meyer et al., 2009; Patten, 2003; Perini et al., 2009; Ruwaard et al., 2009; Spek et al., 2007b; Titov et al., 2010a; Warmerdam et al., 2008). This
suggests that call centres may be a particularly appropriate setting in which to implement evidence-based web programs.

Partial support was found for hypothesis (b). At post-intervention and 12 month follow-up, tracking only was found to be inferior to the Internet plus tracking and Internet only interventions, respectively. Although participants in the tracking only condition showed significant within group declines in depression from pre-intervention to 12 month follow-up, tracking only did not differ significantly from the control condition at post-intervention or 6 month follow-up.

Hypotheses (c) and (d) were not supported. Weekly telephone support provided by a lay telephone counsellor did not confer any additional advantage in terms of depression symptom reduction. The Internet only and Internet plus tracking interventions were equally effective at post-intervention and 6 month follow-up. At 12 months, the Internet intervention without tracking was the only condition to show significant reductions in symptoms relative to the tracking only condition. These findings contribute to the current debate in the e-health literature as to whether guided e-health interventions are more effective that purely self-directed interventions (Spek et al., 2007a). Increasing evidence is emerging to support the notion that the most efficacious level of human support varies by type of disorder, type of user and disorder symptom severity (Newman et al., 2011). According to Newman and colleagues, the current state of the evidence suggests that subthreshold depressive disorders are most effectively treated with predominantly self-administered interventions (human contact beyond assessment for periodic check-ins, and teaching clients how to use therapeutic tools), whereas therapist assisted treatments are the most effective for treating clinical levels of depression. The findings of the current study raise questions about this conclusion. In contrast with Newman’s assertions, the current results suggest that self-administered (human contact for assessment, at most)
and predominantly self-administered web interventions can be equally effective in treating clinically significant symptoms of depression (based on the standard cutoff on the CES-D). This finding may be attributable, at least in part, to differences in the type of service user in the current trial. Helpline users may prefer to treat themselves, to manage their own health, and to retain a greater sense of control over their treatment. Mohr, Cuijpers and Lehman suggest that the more intrinsically motivated that Internet intervention users are, the less support they are likely to require (Mohr, Cuijpers, & Lehman, 2011).

With respect to hypothesis (d), no evidence was found to suggest that telephone tracking increased intervention adherence. There were no significant differences between the participants in the Internet only and the Internet plus tracking conditions in terms of average number and duration of BluePages visits and number of MoodGYM modules completed. Moreover, somewhat paradoxically, telephone tracking was associated with decreased participant retention in the trial from baseline to post-intervention for the Internet plus tracking condition. Telephone contact when not associated with requests to engage with the intervention materials (tracking only condition) did not result in increased dropout. It is possible that weekly contact from the telephone counsellor provided the opportunity for participants in the more demanding Internet intervention condition to ‘opt out’ of the trial, resulting in higher dropout at the time of the post-intervention assessment. It may be that, in this trial, weekly telephone tracking in association with the Internet intervention was construed as ‘policing’. This possibility has been suggested elsewhere. In their meta-analysis of self-help treatments, Gould and Clum found that adding therapist contact during a self-help program resulted in a non-significant trend towards poorer results than ‘pure’ self-help (Gould & Clum, 1993). The authors suggested that, in some cases, clients may find contact ‘annoying, unhelpful and trivial’. They also suggested that clients
who receive treatment with minimal therapist contact might not take as much responsibility for their treatment as those undertaking a pure self-help treatment. It is also possible that factors specific to the providers of the telephone monitoring played a role in attrition. Mohr, Cuijpers and Lehman suggest that human support is associated with increased adherence when users feel accountable to a supporter who is perceived as trustworthy and legitimate and who is clear and collaborative with regard to goal-setting and the expectations placed on the intervention user (Mohr et al., 2011). It is possible that the telephone support provided in the current trial failed to meet one or more of these criteria.

A subsample analysis with participants who completed 3 or more modules of the intervention found similar effects to the full sample analysis. Although the overall condition by occasion interaction was non-significant, significant contrasts were found between conditions (in favour of the intervention) and slightly larger effect sizes were also found between intervention and control conditions at post-intervention, 6 month follow-up and 12 month follow-up, compared to those found in the full sample. These results suggest that an adequate dose of the intervention is associated with strong effect sizes, and that the attenuated statistical effects found may be attributable to reduced power in the subsample.

5.1.2 Anxiety

The omnibus test of the interaction between trial condition and measurement occasion was non-significant for anxiety symptoms, indicating no support overall for any of the key hypotheses relating to anxiety outcome. However, some significant effects were found using planned contrasts. Participants in the Internet only and Internet plus tracking conditions showed significant declines in anxiety symptoms
from pre- to post-intervention, and these declines were maintained at 6 and 12 month follow-up. In terms of between group effects, the Internet only condition was superior to the control condition at post-intervention, and superior to both the control and tracking only conditions at 6 months. Internet plus tracking was superior to the control condition at post-intervention, and the tracking only condition at 6 months and 12 months. Tracking alone was no different from the control condition across all measurement occasions, and as with depressive symptoms, telephone tracking provided no additional advantage over the Internet intervention alone.

Other studies of online CBT for depression have found significant reductions in anxiety symptoms (Ruwgaard et al., 2009; Warmerdam et al., 2008). The failure to find a robust omnibus effect for the intervention on anxiety symptoms in the current trial may be attributable to a number of factors. Despite sharing many of the same core therapeutic principles, the content and focus of CBT for depression and anxiety disorders is quite different. The psychoeducation provided in BluePages and the cognitive restructuring exercises and examples found in MoodGYM are predominantly depression focused, and thus it is probable that the intervention did not contain enough specifically focused anxiety related content to produce meaningful change in anxiety symptoms. Although MoodGYM does contain relaxation exercises, it does not contain the key behavioural techniques (i.e. exposure) that are central in the treatment of many specific forms of anxiety. Moreover, the scale used in the trial to assess anxiety (the anxiety scale from the DASS; (Lovibond & Lovibond, 1995a) is predominantly composed of items that measure the physiological symptoms associated with anxiety, rather than cognitive or worry-related symptoms. It may be argued that it is the physiological symptoms of anxiety that are the most responsive to behavioural techniques, and that a more cognitive measure of anxiety may have been more sensitive to the effects of the intervention.
5.2 Effect of the intervention on secondary outcomes

The effect of the intervention on 13 secondary outcomes was also examined. The secondary outcomes measured were: dysfunctional thinking, quality of life, hazardous alcohol use, suicidal ideation, disablement, knowledge of helping professionals, knowledge of medical treatments, knowledge of psychological treatments, knowledge of alternative treatments, help seeking, stigma, depression literacy and cognitive behaviour therapy literacy. With regard to these outcomes, it was hypothesised that:

a. Internet-based CBT and depression psychoeducation (with and without telephone tracking) will be more effective in reducing levels of dysfunctional thinking, hazardous alcohol use, suicidal ideation, disablement and stigma than a wait-list control condition at post-intervention, 6 month follow-up and 12 month follow-up.

b. Internet-based CBT and depression psychoeducation (with and without telephone tracking) will be more effective in improving quality of life, knowledge of helping professionals, knowledge of medical treatments, knowledge of psychological treatments, knowledge of alternative treatments, help seeking, depression literacy and cognitive behaviour therapy literacy than a wait-list control condition at post-intervention, 6 month follow-up and 12 month follow-up.

5.2.1 Dysfunctional thinking

On the whole, there was little support for the hypothesis regarding dysfunctional thinking. The test of the interaction of condition and measurement
occasion was non-significant. This result was unexpected, given that CBT is designed to specifically target and modify dysfunctional thinking. The result is inconsistent with studies that have found reductions in dysfunctional thinking following face-to-face and online CBT treatments using the full version of the Automatic Thoughts Questionnaire (Allart-van Dam, Hosman, Hoogduin, & Schaan, 2003; Christensen et al., 2004a; Kaufman, Rohde, Seeley, Clarke, & Stice, 2005). Moreover, the result was surprising given that the intervention was shown to effectively reduce symptoms of depression. Theoretically, reductions in depressive symptoms are thought to be mediated by changes in cognitive processes as a function of CBT, and there is empirical evidence to support this (Garratt, Ingram, & Rand, 2007). However, others argue that there is little evidence for the causal role of cognitive change in symptomatic improvements in CBT. Longmore and Worrell reviewed the evidence for cognitive mediation and found that although cognitive change is commonly associated with symptom reduction following treatment, it is not necessarily the primary cause of improvement (Longmore & Worrell, 2007). Although cognitive restructuring is the key feature of CBT, the therapeutic approach is composed of a variety of techniques, any of which may be active in symptom reduction. It is possible that other factors played a more significant role in symptom reduction than cognitive change, despite the theoretical rationale of the intervention.

Despite a non-significant overall finding, contrasts revealed some significant effects within and between trial conditions that were, in part, consistent with the hypothesis. Significant declines in dysfunctional thinking were found in the Internet only and Internet plus tracking conditions from pre- to post-intervention, and these declines were maintained at 6 and 12 months. Moreover, declines in dysfunctional thinking were greater in the Internet only condition compared to the control condition
at post-intervention and 6 months. However, these results should be regarded tentatively given the lack of an overall significant result.

5.2.2 Quality of life

The results showed full support for the hypothesis regarding quality of life. A significant interaction of condition and measurement occasion was found, and contrasts revealed significant improvements in quality of life in participants in the Internet only and Internet plus tracking conditions from pre- to post-intervention, which were maintained at 6 and 12 months. Greater improvements were found in both intervention conditions relative to the control condition at post-intervention and 6 month follow-up.

This finding is consistent with other studies of online CBT for depression that have found significant improvements in quality of life (Ruwgaard et al., 2009; van Straten et al., 2008; Warmerdam et al., 2008). The result was not unexpected given that quality of life is negatively associated with depression, and the current intervention was found to be effective for depression. For example, individuals with depression have been reported to have lower levels of functioning and wellbeing compared to those with other chronic conditions (Wells, Stewart, Hays, Burnam, Rogers, Daniels, Berry, Greenfield, & Ware, 1989b), and depression is associated with impairment in social and occupational roles (Hecht et al., 1989; Whooley et al., 2002). At the same time, quality of life also reflects a broader construct of wellbeing that includes variables such as satisfaction with general health, finances, social relationships and activities of daily living. It is possible that the alleviation of depressive symptoms, and/or the acquisition of helpful cognitive and behavioural strategies enabled participants to affect change in dissatisfying life circumstances or
adopt a more helpful or realistic view of their existing circumstances. In any case, the findings showed that the effects of the intervention were broader than the alleviation of depressive symptoms.

5.2.3 *Hazardous alcohol use*

Results were found to support the hypothesis that the intervention would be associated with a reduction in hazardous alcohol use. A significant condition by measurement occasion interaction was found, and contrasts indicated that participants who received the Internet only and Internet plus tracking interventions showed significant declines in hazardous alcohol use from pre- to post-intervention. These reductions were maintained at 6 and 12 months for participants in the Internet only condition. At post-intervention, the Internet only and Internet plus tracking conditions were superior to the tracking only and control conditions. However, there were no significant differences between conditions at 6 and 12 month follow-up.

Given that pre-intervention levels of alcohol use approached the cutoff that indicates hazardous use, the significant reductions in alcohol use observed in participants who received the intervention suggest that web-based CBT may be effective in preventing hazardous alcohol use. CBT-based interventions have been shown to be effective in the treatment of alcohol use disorders. However, little is known about the mechanisms of action that underpin how and why this is the case. It has been hypothesised that CBT promotes the acquisition of cognitive and behavioural coping skills that enable individuals to manage the life stress and alcohol cues that maintain excessive drinking (Morgenstern & Longabaugh, 2000). However, a review by Morgenstern and Longabaugh failed to find evidence to support the mediating role of coping skills. More recent investigations of computer-based CBT for substance use
disorders have re-visited this hypothesis, suggesting that it may be the quality, not quantity of coping skills acquired through CBT that lead to reductions in hazardous alcohol use (Kiluk, Nich, Babuscio, & Carroll, 2010).

5.2.4 Suicidal ideation

On the whole, no significant differences between conditions across time were found for suicidal ideation. Between group contrasts revealed no significant differences between conditions at any time point. However, within group contrasts revealed that participants in all trial conditions showed significant declines in suicidal ideation from pre-intervention to 6 month follow-up, and these declines were maintained at 12 months.

Failure to find a differential effect for suicidal ideation between trial conditions suggests that a range of interventions may be associated with a decline in suicidal ideation. One of these may be the passage of time, and this may be one explanation for the declines in suicidal ideation observed across all conditions. In this sample, participants were recruited following contact with a crisis helpline. It is possible that levels of suicidal ideation at pre-intervention reflected the initial crisis that participants may have experienced around the time of recruitment, and that the observed declines in suicidal ideation in participants who did not receive the intervention reflect a natural attenuation of the crisis over time. However, other mechanisms cannot be ruled out, particularly for participants in the active treatment conditions. Declines in suicidal ideation in the active treatment conditions were not observed immediately following the intervention, but were present at 6 and 12 month follow-up. These declines may be associated with the immediate post-intervention declines in depressive symptoms observed in these participants. Sokero and
colleagues investigated several factors that may predict the reversal of suicidal processes and found that preceding declines in depressive symptoms independently predicted declines in suicidal ideation (Sokero, Eerola, Rytsala, Melartin, Leskela, Lestela-Mielenon, & Isometsa, 2006).

5.2.5 Disablement

The intervention was associated with reduced disability due to emotional problems in participants who received the Internet interventions. Two studies have previously found significant reductions in disability following online CBT for depression (Meyer et al., 2009; Titov et al., 2010a). However, two other studies that included measures of disability failed to find a significant effect (de Graaf et al., 2009a; Perini et al., 2009). The current intervention was associated with reduced odds of lowered productivity and decreased carefulness due to emotional problems at post-intervention and 12 month follow-up in participants who received the Internet interventions. It is likely that these results are attributable to the declines observed in depression symptoms in participants who received the intervention. Depression is commonly associated with impairment in occupational functioning and substantial lost productivity (Kessler & Frank, 1997; Wells et al., 1989b). Depression also affects memory, concentration and ability to focus on tasks (Austin, Mitchell, & Goodwin, 2001). Significant impairment in work has been shown to be less prevalent in individuals reporting remission of depressive symptoms (Mintz, Mintz, Arruda, & Hwang, 1992), and results from controlled treatment studies demonstrate that interventions for depression are associated with improved role functioning and likelihood of remaining in paid employment (Coulehan, Schulberg, Block, Madonia, & Rodriguez, 1997; Katzelnick, Simon, Pearson, Manning, Helstad, Henk, Cole, Lin,
Taylor, & Kobak, 2000; Wells, Sherbourne, Schoenbaum, Duan, Meredith, Unutzer, Miranda, Carney, & Rubenstein, 2000).

5.2.6 Knowledge of helping professionals, medical treatments, psychological treatments and alternative treatments for depression

No support overall was found for the hypotheses that knowledge of helping professionals and medical treatments would be improved in those who received the intervention, relative to the control group. The interaction of condition and measurement occasion was non-significant for these variables. However, contrasts revealed some significant within and between group differences. Although there was no improvement observed from pre- to post-intervention, participants in the Internet plus tracking condition showed significant within group improvements in knowledge of helping professionals at 6 and 12 month follow-up. At post-intervention, participants in the tracking only condition had significantly poorer knowledge of helping professionals compared to participants in the control condition. For knowledge of medical treatments, only one significant contrast was found, indicating significant improvement in medical treatment knowledge for participants in the Internet plus tracking condition from pre- to post-intervention.

With regard to knowledge of psychological and alternative treatments for depression, the Internet intervention (with and without tracking) was associated with significant improvements over time, relative to the tracking only and control conditions. Immediate improvements in psychological treatment literacy were found in participants in the Internet plus tracking condition at post-intervention, relative to the control condition. At 6 months, both the Internet only and Internet plus tracking conditions were superior to the control. Alternative treatment literacy was greatest
improved in participants in the Internet plus tracking condition at post-intervention. By 6 months, both the Internet only and Internet plus tracking interventions were associated with significant improvements in knowledge of alternative treatments, and participants in these conditions held significant higher levels of knowledge than participants in the tracking only and control conditions.

Improvements in knowledge of psychological treatments and alternative treatments may be due to the psychological focus of the intervention. Participants were engaged in a self-help, psychological intervention, which may indicate a preference for this type of treatment in this sample, and a propensity to seek further information about these types of treatment. It is possible that participants were also drawn to this information on BluePages because they held a relative lack of knowledge about psychological and alternative treatments, compared to knowledge about helping professionals and medical treatments.

5.2.7 Help seeking

Significantly different patterns of help seeking (number of evidence-based treatments used) were found between conditions over time. Participants in the Internet plus tracking condition reported significant increases in the number of evidence-based treatments they accessed from pre- to post-intervention, and these increases were greater than those for participants in the Internet only and tracking only conditions. In fact, participants in the Internet only and tracking only conditions showed declines in the number of evidence-based treatments used over time.

It was predicted that the intervention would promote an increase in help seeking for evidence-based treatments, given inclusion of depression psychoeducation and the delivery of evidence-based psychotherapeutic content. It is unclear why
participants who received the Internet intervention with and without telephone tracking showed different patterns of help seeking over the course of the trial. Telephone supporters were required to adhere to a uniform script and to not provide advice or guidance to participants. However, we cannot exclude the possibility that participants requested and received information about help sources from the telephone supporters.

5.2.8 Stigma

The interaction of condition and occasion was non-significant for stigma, and thus, no support was found for the hypothesis regarding this outcome. Nonetheless, several between condition contrasts were found to be significant. The only participants to show significant immediate and longer term declines in stigma were those who received the Internet only intervention. At post-intervention, participants in the Internet only condition showed significantly lower levels of stigma than participants in the control condition. At 6 months, stigma was significantly reduced in participants in the Internet only and Internet plus tracking conditions, relative to participants in the control condition. No significant differences were found between conditions at 12 month follow-up.

The lack of significant effects for stigma may be due to the content of the intervention. Educational interventions that focus on the provision of information about mental illness have been shown to improve stigma, and indeed, web-based psychoeducation has been shown to effectively reduce stigma in a community sample with elevated depression symptoms (Griffiths et al., 2004). However, the intervention examined by Griffiths and colleagues involved a significant 'dose' of web-based psychoeducation (5 weeks). It is probable that the length of the psychoeducational
component of the current intervention (1 week/session) was not sufficient to produce reductions in depression stigma.

5.2.9 Depression literacy and cognitive behaviour therapy literacy

No effect of the intervention was found for depression literacy between conditions over time. However, at post-intervention, significant improvements in depression literacy from pre- to post-intervention were found in participants in the Internet only and Internet plus tracking conditions, and these gains were maintained at 12 month follow-up. Contrasts also revealed that participants who received the Internet plus tracking intervention had significantly higher levels of depression literacy than participants in the tracking only and control conditions at post-intervention. At this measurement occasion, participants in the Internet only condition also had significantly improved depression literacy compared to participants in the tracking only condition. At 6 months, depression literacy remained higher in participants in the Internet plus tracking condition compared with participants in the control condition. No significant differences were found between conditions at 12 months.

This relatively weak effect of the intervention on depression literacy is not surprising, for similar reasons to those discussed with regard to stigma. Educational interventions are designed to improve an individual's knowledge about depression, and to enhance their ability to detect and respond appropriately to symptoms within themselves and others. As with stigma, it is possible that the psychoeducational component of the intervention (1 week/session) was not sufficient to produce meaningful change in knowledge of depression. A recent study found a strong effect on stigma and depression literacy for a one hour online psychoeducational
intervention (Kiropoulos, Griffiths, & Blashki, 2011). However, it is likely that the dosage this sample received was greater than that of the sample in the current study. An additional factor in the current study may have been the lapse of time between the psychoeducational component of the intervention and the post-intervention assessment.

The intervention was effective, however, in improving knowledge of the key principles of cognitive behaviour therapy. A significant condition by occasion interaction was found for CBT literacy, and contrasts revealed significant within group increases in CBT literacy in the Internet only and Internet plus tracking conditions from pre-intervention to 12 month follow-up. Interestingly, participants in the tracking only condition showed significant declines in CBT literacy from pre- to post-intervention. At post-intervention, participants who received the Internet interventions showed significantly higher CBT literacy scores than participants in the control and tracking only conditions. At 6 months, CBT literacy was higher in participants in the Internet only and Internet plus tracking conditions relative to the control condition and at 12 months, this effect was still present for the tracking only condition.

The effect of the intervention on CBT literacy is expected, given that CBT was the predominant therapeutic focus of the intervention. The finding also indicates that the intervention operated as hoped. Previously, MoodGYM has been shown to improve CBT literacy in a trial involving a community sample with elevated depression symptoms (Christensen et al., 2004a). The sustained improvement in CBT knowledge observed at 6 and 12 month follow-up suggests that participants engaged with the intervention at a depth that created lasting memory for the therapeutic concepts contained in the program.
The anomalous finding that participants in the tracking only condition ‘lost’ knowledge over time may have resulted from the way that the CBT literacy measure was scored. Knowledge was measured by the number of correct responses to a series of items. Possible item responses included ‘yes’, ‘no’, or ‘don’t know’. ‘Don’t know’ responses were considered incorrect for scoring purposes. Participant in the tracking only condition may have been less motivated and diligent in their completion of the items at post-intervention than at pre-intervention, increasing their tendency to select ‘don’t know’ instead of either ‘yes’ or ‘no’. In fact, a significant increase in the number of ‘don’t know’ responses was found for participants in the tracking only condition from pre-intervention to post-intervention. Number of ‘don’t know’ responses declined in participants in the Internet only and Internet plus tracking conditions, and were unchanged in participants in the control condition.

5.3 Missingness

Assignment to the Internet plus tracking condition and lack of adherence to the intervention were significant predictors of failure to complete follow-up assessments. These factors may be related. A large majority of participants allocated to the intervention conditions failed to complete the program in its entirety, making it probable that they dropped out of the trial prior to completing the post-intervention and follow-up assessments. Despite efforts on the part of research staff to convey to participants the importance of completing follow-up assessments, it is possible that participants who did not start or complete the intervention either did not see the need to provide further data or were concerned that their data would distort the results of the trial. Participants in the Internet plus tracking condition who did not engage with the intervention may have been more likely to withdraw from the trial in order to stop receiving weekly telephone calls.
5.4 Intervention adherence

Adherence to the intervention was low relative to many other randomised controlled trials of interventions for depression and anxiety (Christensen et al., 2009; Melville, Casey, & Kavanagh, 2010). The reasons for this are unclear, given that higher rates of treatment adherence have been observed in previous trials of MoodGYM (Caleur, Christensen, Mackinnon, Griffiths, & O'Kearney, 2009; Christensen et al., 2004a). 15.8% of participants in the Internet only condition and 17.8% of participants in the Internet plus tracking conditions completed all 5 modules of the MoodGYM program. Despite low adherence, significant effects were found for the intervention on depression symptoms and a range of secondary outcomes. There are many reasons for treatment non-adherence, one of which may be the dosage-response relationship associated with the intervention in this sample. It is possible that non-adherent participants derived maximum benefit from the intervention prior to the full completion of MoodGYM. It could be that briefer doses of the intervention were sufficient to produce symptom change or encourage additional help seeking (Christensen et al., 2006). If shorter interventions have the potential to produce similar health outcomes to longer interventions, the issues with adherence associated with longer interventions may be irrelevant (Christensen & Mackinnon, 2006).

5.5 Satisfaction and feedback about the intervention

On the whole, participants were positive in their feedback regarding the intervention. Approximately three quarters of participants indicated that they found the intervention either ‘very easy’ or ‘easy’ to understand, and 90% rated the programs as ‘very useful’ or ‘useful’. 95% indicated that they would recommend the intervention websites to others. Qualitative feedback from participants suggested that
they found the program engaging, useful, and that they identified with the characters and content of the program. The ability for users to connect and engage with an Internet intervention is necessary for adherence and gaining maximum benefit from the program. The Internet is largely a visual medium, and thus, it may be important for online interventions to be dynamic, visually engaging, and professional, as well as evidence-based, in order for them to be fully adopted by users (Ybarra & Eaton, 2005).

The intervention also appeared to have a positive impact on participants' beliefs about the general usefulness of Internet-based treatments. Participants in the Internet plus tracking condition showed a significant increase in favourable beliefs towards Internet treatments from pre- to post-intervention relative to participants in the tracking only and control conditions. Despite the expansion of the Internet, treatment via automated web-based applications is still a relatively new concept for many people. It is of significance that the intervention had a positive impact on participants' views of help seeking for mental health problems using the Internet since it may encourage further subsequent help seeking in the participants and their contacts. This finding is also significant given that a lack of identification with web-based interventions has been reported as an important barrier to the use of these treatments (Gerhards, Abma, Arntz, de Graaf, Evers, Huibers, & Widdershoven, 2011).

5.6 Strengths of the study

As far as can be ascertained, the current study is the first to demonstrate that web-based CBT can be effective in the context of a generic, national helpline. The trial demonstrates that successful RCTs are possible with close collaboration between researchers and well-established and recognisable community-based organisations. In addition, the study demonstrates that a generic helpline could deliver a brief effective intervention within its current service model, and that volunteer counsellors trained to
provide ‘one off’ telephone counselling were capable of delivering a new form of
service within their organisation. The conduct of the trial within Lifeline has helped
to create a shift within the organisation towards embracing the research process and
the incorporation of evidence-based standards. ‘Cultural’ factors commonly affect the
process of research in predominantly non-research settings, and there is often unease
within these environments with moving from old practices towards newer evidence-
based practices (Hunt, Shepherd, & Andrews, 2001). The longer that research is
present within an organisation, greater is the awareness that the processes associated
with the research and its outcomes are part of usual service delivery.

Moreover, the effect sizes obtained in the trial are well within the range of
those obtained in face-to-face efficacy trials of CBT delivered by clinicians.
Reductions in clinically significant symptoms of depression and improvement in other
outcomes such as quality of life and alcohol use demonstrate the ability of the
intervention to produce statistically and clinically meaningful change in a population
with severe symptoms. The trial also demonstrates the potential for individuals in
remote or rural locations, those unable to leave home (because of carer responsibilities
or mental health symptom severity), and those not wishing to seek traditional medical
contact to receive an effective intervention through the Internet.

Importantly, the trial demonstrates the potential for the intervention to reduce
reliance on the Lifeline service by repeat callers. Often, these callers are not
experiencing acute distress each time they contact the service. At post-intervention,
participants in the Internet only condition were less likely than participants in the
control condition to be a ‘frequent’ user of Lifeline. The provision of targeted,
evidence-based resources to this sample appears to have played a role in enhancing
their ability to manage their symptoms, either through direct use of the intervention
materials or by seeking out of other forms of treatment. Minimising the frequency of
repeat callers who are not in distress enables Lifeline to assist more people in immediate crisis, which is the primary aim of the service.

Moreover, the trial provides further knowledge about a group of people in the community who are understudied and in great need of mental health interventions. The scoping phase of the trial demonstrated that Lifeline users were willing to give up their anonymity to participate in the program, a finding that contradicts the commonly held belief that retaining their anonymity is non-negotiable in this sample. This widens the potential for Lifeline to engage with their client base in more comprehensive and innovative ways in the future.

5.7 Limitations of the study

Intervention completion rates were lower in this study relative to some other trials of web-based treatments for depression (Christensen et al., 2009) but not of other telephone based services (Rhee, Merbaum, Strube, & Self, 2005). The reasons for this are unclear. Callers to telephone helplines may be at an increased risk of experiencing more stressful events that preclude trial completion. Members of this sample may also prefer to manage their own health. The current study was a true effectiveness trial employing a volunteer workforce for recruitment and telephone tracking, and hence would be expected to be associated with greater recruitment and adherence issues relative to the more controlled environment of an efficacy study (Flay, 1986).

In addition to lower trial completion rates, only a small percentage of all potentially interested and eligible callers were initially invited to participate in the trial by telephone counsellors. Based on annual rates of callers to Lifeline’s service (and excluding those in immediate crisis, those experiencing imminent suicide risk, recurrent callers and those seeking referrals), only 16.5% of people who called
Lifeline during the recruitment period were provided with an invitation to participate in the trial. Thus, approximately 15,000 callers who could have potentially been screened and recruited were not provided with an invitation. There may be numerous reasons for why this initial invitation figure was so low. Many barriers are encountered in the process of implementing a new service or innovation, some of which include negative perceptions of the service and reluctance to fit new procedures into an existing service delivery system. Indeed, recruitment of participants into clinical trials in general practice is difficult (Hunt et al., 2001), and the same difficulties may apply to recruitment in a telephone counselling setting. Telephone counsellors were surveyed to assess their reasons for not inviting callers to participate in the trial (Burgess et al., 2010). The most common reasons that telephone counsellors cited for not providing an invitation were feeling that many of the callers they spoke to were not appropriate for an invitation and forgetting to ask the caller. The first reason may reflect a level of discomfort and unfamiliarity in telephone counsellors with the shift in their role from counsellor to researcher/recruiter. Indeed, this is a difficulty that has also been experienced by general practitioners involved in clinical trial recruitment (Hunt et al., 2001). Forgetfulness was also reported as an issue, despite the use of ongoing reminders and the presence of an onsite trial manager in one of the recruitment centres. Additional strategies to target this issue in future trials may include recruiter training that provides tailored information about who can and should receive recruitment invitations.

Despite the strong effect sizes associated with the intervention, symptom severity remained high at post-intervention. However, this accords with data on the effectiveness of antidepressants for depression, where overall only about 50% of patients randomised to active treatment were considered improved using intention to treat analyses at post-intervention (Bollini, Pampallona, Tibaldi, Kupelnick, &
Munizza, 1999). Similar rates are reported following face-to-face CBT (DeRubeis et al., 2005). Moreover, the intervention was short, delivered by non-health professionals, and may have constituted the only treatment received by participants.

Greater dropout in the Internet plus tracking condition may have inflated the effects observed in this group. It is noteworthy, however, that dropout was not greater in the Internet only condition, so the finding of differential dropout from the Internet plus tracking condition does not undermine the primary finding that the intervention was more effective than either tracking alone or the control condition. It should also be noted that increased attrition in the Internet plus tracking condition (particularly at 12 month follow-up) is likely to have impacted the power of the comparisons involving this group. Two outliers were identified and excluded from the main analysis. Subsequent analyses with outliers included confirmed the direction of findings, although it is acknowledged that effect sizes were attenuated.

A further limitation of the study was the estimation of depression caseness using a cutoff on the CES-D. Telephone assessment by a health professional using a diagnostic tool such as the Mini International Neuropsychiatric Interview (Sheehan, Lecrubier, Sheehan, Amorim, Janavs, Weiller, Hergueta, Baker, & Dunbar, 1998) or the Composite International Diagnostic Interview (Robins, Wing, Wittchen, Helzer, Babor, Burke, Farmer, Jablenski, Pickens, & Regier, 1988) would have been a more reliable method of determining cases of depression. However, at the start of the trial it was unclear whether potential participants (who normally retain an anonymous and short but frequent relationship with the helpline service) would be willing to undergo extensive psychological testing at baseline. It was of interest, however, that in the context of the current trial, callers were willing to forgo anonymity to receive the intervention, so the use of diagnostic interviews in future trials is certainly warranted.
5.8 Clinical implications

Demonstration of statistically significant change using group means does not provide information about clinically meaningful outcomes, such as the proportion of participants who have improved or recovered following treatment (Jacobson, Roberts, Berns, & McGlinchey, 1999). The intervention was shown to significantly reduce caseness on the CES-D in participants who received the intervention. The odds of clinical depression caseness at post-intervention were 6 times lower in the Internet plus tracking condition relative to participants in the control condition. Clinical caseness was reduced by approximately half in the intervention participants at 6 and 12 month follow-up. To change status on the CES-D from clinical caseness to non-caseness at post-intervention, the estimated number of participants who would need to be treated under the Internet only intervention was 6.03 and 4.43 for the Internet plus tracking intervention. In addition to these outcomes, the effect sizes associated with the Internet intervention conditions were analogous to those obtained in trials of face-to-face clinician delivered CBT programs for depression (Butler et al., 2006).

The magnitude of between group effect sizes for the Internet only and Internet plus tracking conditions were similar to or larger than effect sizes found for therapist-guided Internet interventions for depression (Andersson et al., 2005; Perini et al., 2009; Ruwaard et al., 2009). This lends further support to the notion that guidance from a clinician, although efficacious, is not necessary in all contexts and that it is possible for web-based programs to be delivered effectively by non-clinicians. Nonetheless, there are important clinical and ethical considerations in the use of therapist guidance with self-help treatments. At least minimal contact may be necessary for individuals who experience severe symptoms of depression, given the elevated risk of suicidal ideation and behaviour. Periodic guidance by therapists may also perform an
important function in terms of symptom monitoring and referral to other more intensive forms of treatment if necessary.

The clinical effectiveness of a treatment is also reflected in the extent to which it improves broader functioning and wellbeing (Lam, Filteau, & Milev, 2011). The clinical classification of MDD in the DSM-IV highlights the critical role of broader functioning in depression, and stipulates that 'clinically significant distress or impairment in social, occupational, or other important areas of functioning' is a necessary component in the diagnosis of MDD (American Psychiatric Association, 2000). Additionally, individuals with mood disorders rate the restoration of quality of life and optimal functioning as important as the absence of depressive symptoms (Zimmerman, McGlinchey, Posternak, Friedman, Attiullah, & Boerescu, 2006). Findings from the current study demonstrate that the intervention was effective in improving functioning in a range of areas including alcohol use, quality of life and illness-related knowledge. This lends further support to the clinical utility and acceptability of the intervention, given the importance of these outcomes to consumers of mental health services.

5.9 Practical implications

The results of the trial suggest considerable implications from a policy perspective. The trial demonstrated that the volunteer sector was capable of effectively providing evidence-based care to individuals with depression. Recently, governments in both the United Kingdom and the United States of America have recognised the importance of delivering CBT through general practice by training CBT technicians (Seward & Clark, 2010), or through community-based channels (McHugh & Barlow, 2010). Indeed, evidence is mounting for the effectiveness of technicians who can be trained to assist in the delivery of automated CBT materials,
as an alternative to clinicians (Titov et al., 2010a). The current trial offers support for an additional model of CBT delivery that harnesses an existing workforce with relevant skills and training in telephone-based counselling. Given that it harnesses an existing workforce, this model may well provide a highly cost effective alternative to training technicians to deliver programs in general practice and other settings.

The positive effect of the intervention on secondary outcomes such as disablement (reduced work productivity and reduced carefulness in work and other activities) and alcohol use has potential implications for the cost of depression on the healthcare industry and the workforce. The effective treatment of depression has been shown to improve functioning at work and increase the probability of remaining in paid employment. There is clear potential for low-cost web-based interventions to lower absenteeism and the number of unproductive work days, through the effective treatment of depression. It has been estimated that gains in work productivity offset the cost of traditional depression treatment by rates of 45% to 98% (Simon, Barber, Birnbaum, Frank, Greenberg, Rose, Wang, & Kessler, 2001). It is unknown how these figures relate to lower-cost, less intensive forms of treatment delivered using the web. Effective depression treatment may also have important flow-on effects for health service utilisation. A cost-effective and highly accessible intervention that reduces depressive symptoms as well as symptoms of related or co-morbid conditions may reduce the frequency or complexity of an individual’s healthcare needs. Indeed, depression treatment has been associated with reduced medical utilisation for general somatic symptoms as well as defined medical conditions (Simon, Revicki, Heiligenstein, Grothaus, VonKorff, Katon, & Hylan, 2000).
CHAPTER 6 – PREDICTORS OF TREATMENT
ADHERENCE AND OUTCOME

6.1 Overview

This chapter reports an additional study of the ECCO trial that examines the factors associated with treatment adherence and outcome in participants who were assigned to receive the Internet intervention. Rates of adherence to the intervention were low, and given that treatment adherence is related to outcome, it is important to understand the factors that predict adherence. Moreover, not all who attempt or complete an intervention benefit from the experience. Therefore, in recommending or disseminating Internet-based interventions it is important to understand the characteristics of those who respond to treatment. Previous research suggests that a number of key factors may be associated with treatment adherence and outcome, including demographic characteristics, clinical characteristics, and cognitive/motivational factors. Treatment adherence has also been examined as a predictor of outcome. The evidence for these predictors is discussed in detail below for studies of face-to-face and Internet-based psychotherapy interventions for depression. This chapter continues with a quantitative examination of demographic, clinical and motivational predictors of adherence to and outcomes for the Internet-based intervention employed in the ECCO trial. Finally, the results of these analyses are discussed in the context of the existing literature. The terms ‘adherence’, ‘compliance’ and ‘drop out’ are used interchangeably to refer to the degree of treatment completion or non-completion.
6.2 Predictors of adherence and outcome

In both research and clinical settings, a direct relationship has been found between psychotherapy treatment adherence and outcome. Those who mostly or fully complete psychotherapy report greater symptom reduction than those who drop out prematurely (Pekarik, 1986). Premature dropout from treatment is associated with a range of negative consequences for both clients and clinicians, including prolonged depressive episodes, greater likelihood of symptom relapse, and reduced cost-effectiveness of treatment (Pekarik, 1985, 1986). Thus, it is important to understand both the stable and modifiable factors that predict adherence, in order to identify those who are unlikely to adhere to treatment, and to develop effective strategies to prevent dropout.

Several factors are also believed to predict response to treatment. Among the most widely studied are client factors, defined as the characteristics of those who undertake treatment (Clarkin & Levy, 2004). Other factors that have been associated with outcome include adherence to treatment (session attendance and homework completion) and the quality of the therapeutic alliance (Garland & Scott, 2002; Martin, Garske, & Davis, 2000). Identification of the factors that influence treatment outcome may assist clinicians to match clients to the most suitable treatment approach.

The factors associated with treatment adherence and outcome in Internet-based interventions are under researched. Face-to-face and Internet-based CBT interventions may share the same underlying therapeutic principles, but they may differ in terms of therapeutic process. Face-to-face therapy involves the development of a working alliance between the client and therapist. Although research examining the therapeutic alliance in computer contexts is beginning, many Internet-based interventions are largely self-administered, with minimal support from a mental health professional or coach. A strong therapeutic alliance has been shown to reduce the
likelihood of dropout from therapy and to improve treatment outcome (Martin et al., 2000; Mohl, Martinez, Ticknor, Huang, & Cordell, 1991; Sharf, Primavera, & Diener, 2010). However, the therapeutic alliance may not be a relevant predictor of adherence and outcome in primarily self-directed online interventions. Client characteristics are common to both face-to-face and Internet-based interventions. These include demographic characteristics (e.g. client age, sex, educational level, employment status, and relationship status), clinical characteristics (e.g. severity of symptoms, chronicity or stability of symptoms, complexity of diagnostic presentation) and cognitive or motivational factors (e.g. client expectations about the effectiveness of treatment, treatment credibility beliefs and client self-efficacy).

6.2.1 Demographic predictors of adherence

Age

Client age has been shown to be related to increased risk of dropout from face-to-face treatments for depression. An analysis of casenotes from clients receiving treatment for depressive and anxiety neuroses in a UK psychiatric clinic indicated that adherence to treatment was associated with older age (Hillis, Alexander, & Eagles, 1993). Wierzbicki and Pekarik also found that in studies with adult samples, younger age was associated with greater likelihood of dropout from psychotherapy (Wierzbicki & Pekarik, 1993). The same result was obtained in a more recent study of chronically depressed outpatients who received psychotherapy, antidepressant medication or a combination of the two (Arnow, Blasey, Manber, Constantino, Markowitz, Klein, Thase, Kocsis, & Rush, 2007). However, other studies of face-to-face therapy have failed to find an association between age and dropout (Hunt & Andrews, 1992; Oei &

Evidence from studies of online treatments is scarce and inconclusive. Younger age has been shown to be predictive of better adherence to an online CBT intervention for depression in community users (Batterham et al., 2008). In contrast, compliance with treatment was higher for older participants in an RCT of an online treatment for PTSD (Lange et al., 2003). Age was not predictive of dropout in a randomised controlled trial of online CBT for depression (Clarke et al., 2002).

Sex

Findings regarding the relationship between client sex and dropout from treatment are mixed. The sex of the client has been found to be unrelated to dropout in moderately to severely depressed outpatients receiving cognitive therapy, pharmacotherapy or a combination of the two (Simons et al., 1984), in adults receiving cognitive therapy in a private practice setting (Persons et al., 1988), and in adults receiving treatment for depressive and anxiety neuroses in a psychiatric clinic in the UK (Hillis et al., 1993). Similarly, in two Australian samples of adults undertaking a group therapy intervention for depression, the sex of the client was not found to be associated with early dropout, late dropout or completion of the intervention (Davis, Hooke, & Page, 2006; Oei & Kazmierczak, 1997). Similarly, Hunt and Andrews found that dropout from a group-based treatment for anxiety disorders was unrelated to the sex of the client (Hunt & Andrews, 1992). However, a meta-analysis of psychotherapy dropout reported that females dropped out of therapy more often than males, in both child and adult samples (Wierzbicki & Pekarik, 1993). By contrast, males were found to attend fewer therapy sessions than females in a study.
of gender differences in response to individual CBT (Thase, Reynolds, Frank, Simons, McGeeary, Fasiczka, Garamoni, Jennings, & Kupfer, 1994).

In online treatments for depression and PTSD, two studies have reported that females were more adherent to treatment than males (Batterham et al., 2008; Lange et al., 2003). However, other online studies have reported no relationship between gender and adherence to treatment for depression (Clarke et al., 2005; Clarke et al., 2002).

**Relationship status**

A small number of face-to-face and online treatment studies have reported an association between relationship status and treatment dropout. A reduced risk of dropout from psychotherapy for depression was found in those in a married relationship relative to those who were unmarried (Hillis et al., 1993; Wierzbicki & Pekarik, 1993). However, two other face-to-face studies have failed to find a relationship between relationship status and dropout (Arnow et al., 2007; Oei & Kazmierczak, 1997).

Two studies of Internet-based treatments for depression have examined relationship status as a predictor of dropout. Van Straten and colleagues found that married participants were more likely to complete an online intervention for depression, anxiety and stress (van Straten et al., 2008). Similarly, Lange and colleagues found that those who lived with a partner were more compliant with an online treatment for PTSD (Lange et al., 2003).

**Level of education**

There is some evidence to suggest that dropout is associated with client education level. Studies reviewed by Wierzbicki and Pekarik found that clients with lower levels of education demonstrated a moderately increased risk of dropping out of
therapy (Wierzbicki & Pekarik, 1993). The same findings were reported for a study of individual psychotherapy for depression (Last, Thase, Hersen, Bellack, & Himmelhoch, 1985). A significant relationship between higher dropout and fewer years of education was found in private practice clients receiving cognitive therapy for depression (Persons et al., 1988). Studies also suggest that those with lower levels of education are more likely to discontinue bibliotherapy for depression (Scogin, Hamblin, & Beutler, 1987; Scogin, Jamison, & Gochneaur, 1989). However, not all studies have reported an association between educational level and dropout. One study found no association between educational level and dropout in a moderately to severely depressed group of outpatients receiving cognitive therapy, pharmacotherapy or a combination of the two (Simons et al., 1984). Similarly, no association was found between educational level and dropout in a study of adults undertaking a group therapy intervention for depression (Oei & Kazmierczak, 1997).

The evidence for an association between level of education and adherence to online interventions is similar to that obtained for face-to-face treatments. Spek and colleagues found that those with lower levels of education dropped out more often prior to the start of an Internet-based treatment for depression (Spek, Nyklicek, Cuijpers, & Pop, 2008b). Moreover, higher education was predictive of greater adherence in a sample of adults who were administered online CBT and problem-solving interventions for depression (Warmerdam et al., 2008). Higher education was also associated with greater adherence in spontaneous community users of a freely available online CBT program (Batterham et al., 2008). However, Lange and colleagues failed to find a relationship between education and adherence to an online intervention for PTSD (Lange et al., 2003).
Employment status/socioeconomic status

Early studies found no relationship between employment status and dropout from cognitive therapy or antidepressant treatment in outpatient (Simons et al., 1984) and private practice settings (Persons et al., 1988). Similarly, Oei and colleagues reported that employment status was not related to early dropout, late dropout or completion of group therapy for depression (Oei & Kazmierczak, 1997). However, lower income was found to be associated with greater risk of dropout in a more recent study of chronically depressed outpatients who received psychotherapy, antidepressant medication or a combination of the two (Arnow et al., 2007). Other studies have also reported that low socioeconomic status is related to increased risk of dropping out of therapy (see review by (Wierzbicki & Pekarik, 1993).

The relationship between employment status and dropout from online treatments has not yet been investigated and is therefore unknown.

Implications and rationale for hypotheses

It is difficult to draw reliable conclusions about the demographic profile of those who are at risk of dropping out of treatment due to inconsistencies in study findings. Nevertheless, younger age, lower levels of education and not being married appear to be the most robust demographic predictors of poor adherence to face-to-face depression treatments. With regard to face-to-face treatment, it has been suggested that younger adults may be more prone than older adults to experience chaotic or disruptive life circumstances that impede therapy attendance. It has also been argued that they may be more likely than older adults to perceive therapists as an authority figure against which to rebel (Hillis et al., 1993). By contrast, younger adults may be more likely to adhere to online treatments since they can be accessed at the younger person's convenience. Moreover, as a group, younger adults may be more familiar
with the Internet than older adults. Based on this and the results of the only previously published study of the relationship between age and adherence among users of MoodGYM (Batterham et al., 2008), it is hypothesised that younger age will be associated with greater adherence to the intervention in the current sample.

Those in married relationships may draw stability and support to attend therapy from their partner, and this may be one possible reason why this group are more likely to adhere to treatment. Married people are also more likely to adhere to online treatments for depression, stress and PTSD, suggesting that partner support (among other factors) may also promote compliance to Internet-based treatments. Thus, it is hypothesised that in the current sample, those who are married or in a de facto relationship will be more likely to adhere to the intervention than those who are separated, divorced, widowed or never married.

Successful engagement with CBT requires a necessary level of ‘psychological mindedness’ and skill in verbal and conceptual reasoning (Blenkiron, 1999), characteristics which are most likely found in those with higher levels of education. This is one possible explanation for the association between higher education and better adherence to face-to-face CBT. The same may be true of online CBT treatments, and there is evidence to suggest that adherence to online treatments for depression is higher in those with higher levels of education. Online therapy programs also require proficiency in the use of computers and the Internet, and those with higher levels of education are known to spend more time online and to engage in more Internet sessions than those with lower levels of education (Jackson, von Eye, Biocca, Barbatsis, Fitzgerald, & Zhao, 2003). In the current sample, it is hypothesised that those with higher levels of education will be more likely to adhere to the intervention.
Findings regarding the relationship between sex of the participant and adherence and between employment status and adherence are less clear from studies of face-to-face treatments. Four studies reported no relationship between these variables, and those that found a relationship reported mixed findings. A similar pattern of mixed findings have been reported in studies of online treatments. However, since Batterham and colleagues found that being female was associated with greater adherence in community users of MoodGYM, female sex is hypothesised to be associated with better adherence in the current sample. The effect of employment status on adherence is also unclear. There is some evidence that lower income and lower socioeconomic status predicts poorer adherence to face-to-face treatment. Those facing financial pressure may find it more difficult to meet the cost of ongoing therapy sessions and unemployment is linked to socioeconomic disadvantage (Bartley & Owen, 1996). However, employment status or income may be a less significant factor in adherence to online treatment, given that Internet treatments may be less expensive to the user than face-to-face therapy (Tate, Finkelstein, Khavjou, & Gustafson, 2009). To date, no studies have investigated the relationship between employment status and adherence to Internet-based interventions. However, given that several studies of face-to-face treatments found no relationship between employment status and adherence to treatment, and that financial factors may play a less influential role in online than face-to-face therapy, it is tentatively hypothesised that employment status will be unrelated to adherence to the intervention in the current sample.
6.2.2 Demographic predictors of outcome

As for adherence, evidence concerning the relationship between demographic variables and response to psychotherapy is mixed. A randomised controlled trial of problem-solving therapy and antidepressants for depression in primary care found that demographic characteristics did not predict recovery (Mynors-Wallis & Gath, 1997). However, other studies (largely naturalistic follow-up studies) have found associations between demographic characteristics and outcome.

Age

Younger age has been associated with greater improvement in depressive symptoms in those referred to psychotherapy in primary care (Ronalds, Creed, Stone, Webb, & Tomenson, 1997). Similarly, Seivewright and colleagues reported that older age was associated with poorer outcome at 5 year follow-up in a sample of 210 outpatients referred to treatment for GAD, panic disorder and dysthymia in primary care (Seivewright, Tyrer, & Johnson, 1998). The association between younger age and better outcome appears consistent across different types and modes of therapy. Older age was associated with poorer outcome in a study of psychodynamic psychotherapy for depression (Jones, Krupnick, & Kerig, 1987), and Steinmetz and colleagues found that younger participants showed better outcome in a group-based intervention for depression (Steinmetz, Lewinsohn, & Antonuccio, 1983).

Four studies have examined age as a predictor of outcome in online CBT for depression. None found an association between age and outcome, either in terms of reduced post-treatment symptom severity (Clarke et al., 2002; de Graaf, Hollon, & Huibers, 2010) or pre- to post-treatment symptom change (Andersson, Bergström, Hollandare, Ekselius, & Carlbring, 2004; de Graaf et al., 2010; Spek et al., 2008b).
Sex

Evidence regarding the effect of the sex of the client on depression treatment response is mixed. Several early studies that relied on therapist and client ratings of improvement suggested that female patients derived more benefit from psychotherapy than male patients (Jones & Zoppel, 1982; Kirshner, Genack, & Hauser, 1978). However, these studies were based on university student samples and subjective ratings of symptom improvement. Other studies employing cognitive behavioural treatments for depression have reported that men and women respond similarly (Allart-van Dam, Hosman, Hoogduin, & Schaap, 2007; Jarrett, Eaves, Grannemann, & Rush, 1991; Thase et al., 1994).

The evidence with regard to the sex of the client and outcome in online treatments for depression is also mixed. Spek and colleagues found that outcomes for females were superior to those for males in an online treatment for depression (Spek et al., 2008b). However, several other studies have reported no difference in treatment response for men and women (Andersson et al., 2004; Clarke et al., 2002; de Graaf et al., 2010).

Educational level and employment status

Few studies have examined the effect of educational level or employment status on depression treatment outcome. In one study, clients with higher levels of education and those who were currently employed showed greater improvement in depressive symptoms than those who were not employed or who had lower levels of education (Ronalds et al., 1997). In another study, higher reading level (which may be associated with educational level) predicted better outcome in group-based CBT for depression (Steinmetz et al., 1983). However, one study failed to find evidence to suggest that educational level was related to response to CBT (Jarrett et al., 1991).
With regard to online CBT for depression, Spek and colleagues found that those with higher levels of education showed greater improvement in depressive symptoms following treatment (Spek et al., 2008b). However, Andersson and colleagues found no relationship between educational level and response to Internet-based CBT for depression (Andersson et al., 2004). Similarly, both educational level and employment status were found to be unrelated to outcome in a study of online CBT and problem-solving therapy by Warmerdam and colleagues (Warmerdam et al., 2008). However, unemployment was associated with higher depression scores at 12 months post-treatment in a study of online CBT for depression by de Graaf and colleagues (de Graaf et al., 2010).

Relationship status

Jarrett and colleagues found that those in married relationships showed greater reductions in depressive symptoms than those who had never been married, were separated, were widowed or were divorced (Jarrett et al., 1991). In a large clinical trial of interpersonal psychotherapy (IPT), CBT and pharmacotherapy, those who were married showed greater reductions in symptoms in response to CBT, whereas those who were separated or divorced showed greater reductions in symptoms following IPT (Sotsky, Glass, Shea, Pilkonis, Collins, Elkin, Watkins, Imber, Leber, Moyer, & Oliveri, 1991). In their follow-up of participants who received 16 weeks of cognitive therapy for depression, Thase and colleagues found that those who were unmarried had a higher risk of relapse following treatment (Thase, Simons, McGeary, Cahalane, Hughes, Harden, & Friedman, 1992).

However, studies of predictors of outcome in online treatments have either found no differences in response to treatment between those who were married and those who were not (Spek et al., 2008b) or have not examined relationship status as a
predictor of outcome (Andersson et al., 2004; de Graaf et al., 2010; Warmerdam et al., 2008).

Implications and rationale for hypotheses

Younger age, being married and having a higher level of education are characteristics that appear to be associated with better outcome in face-to-face psychotherapeutic treatments for depression. Although there is some evidence to suggest that being employed and being female is associated with better response to face-to-face treatment, there are insufficient studies to make firm conclusions about these relationships.

Although younger age was associated with better outcome in studies of face-to-face treatment, it was not a significant predictor of outcome in studies of online treatments. It is unclear why this is the case. Older adults may be more likely to have experienced more previous episodes of depression and more prolonged depressive episodes than younger adults. This may partially account for why older adults may respond less favourably to face-to-face treatment, given the evidence to suggest that those with chronic depression respond less favourably to cognitive therapy than their acutely depressed counterparts (Hamilton & Dobson, 2002). However, no studies of online treatments have found a relationship between age and outcome. Also, Spek and colleagues examined a less chronic sample in their study of online CBT, suggesting that perhaps chronicity is not as significant a factor in outcome in online treatment. Based on the evidence from studies of online treatments, it is hypothesised that age will be unrelated to outcome in the current sample.

Those who are married have demonstrated experience and success with initiating and maintaining a close personal relationship, suggesting an ability to consider a self or world view different to their own. It has been suggested that this
'cognitive flexibility' may explain in part why those who are married respond more favourably to therapy (Jarrett et al., 1991). It may also be the case that those who are married experience greater social support, and this may strengthen their commitment to and engagement with therapy. Considering that the evidence from face-to-face studies suggests that better outcome is associated with being married, and that few studies of online treatments have examined relationship status as a predictor of outcome, it is hypothesised that those in the current sample who are married or in a de facto relationship will show greater improvement in depressive symptoms following treatment than those who are unmarried, separated, widowed or divorced.

Studies of face-to-face treatments suggest that a higher level of education is predictive of better treatment outcome. One study of an online treatment for depression also reported this finding (Spek et al., 2008b); however, two studies reported no relationship between educational level and treatment outcome (Andersson et al., 2004; Warmerdam et al., 2008). Nevertheless, educational level may be related to outcome in online treatments, given that an individual's study skills and experience using computers may be likely to influence their engagement with the program. On this basis, it is hypothesised that in the current sample, higher education will be associated with better outcome in terms of depression symptom reduction.

Although there is a small amount of evidence to suggest that females respond better than males to both face-to-face and online treatments for depression, the majority of studies examining the association between the sex of the client and treatment outcome indicate that there is no relationship between these factors. Accordingly, it is hypothesised that the sex of the participant will not be significantly related to symptom change following treatment in the current sample.

There is a small amount of evidence that having employment is associated with better treatment outcome. Based on this evidence, it is hypothesised that in this
sample, current employment (either full or part time) will be associated with better outcome in terms of depression symptom reduction.

6.2.3 Clinical predictors of adherence

Several studies have examined the evidence for an association between baseline depression symptom severity and adherence to treatment. Last and colleagues found that those who dropped out prematurely from psychosocial treatment were more severely depressed at baseline (Last et al., 1985). Similarly, Persons and colleagues found that those with a higher Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) score at the beginning of treatment were more likely to dropout (Persons et al., 1988). However, other studies of face-to-face treatments have found that symptom severity was unrelated to dropout in individual (Hunt & Andrews, 1992; Simons et al., 1984) and group-based CBT (Oei & Kazmierczak, 1997; Westra, Dozois, & Boardman, 2002).

Mixed results have also been reported for online CBT interventions. In community users of an online CBT intervention for depression, superior adherence was predicted by higher initial depression symptom severity (Batterham et al., 2008). In contrast, intervention adherence was associated with lower baseline depression symptoms in another study of an online intervention for depression (Warmerdam et al., 2008) and in a study of an online treatment for GAD (Kenardy et al., 2003). Finally, one study of an online treatment for depression reported that baseline depression symptom severity was unrelated to dropout (Andersson et al., 2005).
Implications and rationale for hypothesis

Studies of face-to-face and online treatments have found mixed patterns of results with regard to baseline severity and adherence. Some studies have found no relationship, whereas other report divergent findings. The divergent findings reported in the studies of online interventions make it particularly difficult to hypothesise how depression symptom severity may relate to adherence in the current sample. The finding by Batterham and colleagues is in contrast to that found in other online intervention studies, and this may be due to the different settings in which these studies were conducted. Batterham and colleagues suggest that their finding may reflect possible differences between spontaneous community users of open access websites and those who choose to participate in research trials. Given that the current investigation of adherence is conducted within a research trial, the findings of Warmerdam and colleagues and Kenardy and colleagues may be more relevant. Thus, it is hypothesised that better adherence to the intervention will be associated with lower baseline symptom severity in the current sample.

6.2.4 Clinical predictors of outcome

In an early study of the relationship between depression symptom severity and response to CBT, those with more severe symptoms at baseline (a score of 20 or more on the Hamilton Rating Scale for Depression (HRSD) had a significantly lower response rate at post-intervention, compared to those with less severe symptoms (Thase, Simons, Cahalane, McGeary, & Harden, 1991). However, both groups showed significant reductions in symptoms at post-intervention (Thase et al., 1991). In a subsequent study, Thase and colleagues demonstrated that higher pre-treatment depression severity scores were associated with slower remission of symptoms (Thase
et al., 1994). In a study of outpatients with moderate to severe Major Depressive Disorder, higher initial BDI and HRSD scores were predictive of higher scores on these measures post-treatment, indicating poorer response to cognitive therapy according to the authors (Jarrett et al., 1991). In their study of a group-based psychoeducational intervention for depression, Steinmetz and colleagues found that participants with all levels of symptom severity improved, but those who were initially more depressed maintained a relatively high level of symptoms at post-intervention (Steinmetz et al., 1983).

In contrast, Persons and colleagues reported that those with higher initial depression scores showed a higher average percentage of improvement in symptoms than participants with lower initial depression scores (Persons et al., 1988). More recently, in a sample of those who sought treatment for depression through primary care, higher initial severity of depression was significantly associated with greater reductions in HRSD scores at 6 months post-assessment (Ronalds et al., 1997). With regard to bibliotherapy, no association has been reported between depression severity level and response to treatment (McKendree-Smith, Floyd, & Scogin, 2003).

With regard to online treatment, Spek and colleagues found that higher baseline depression symptoms were associated with greater improvement following online CBT treatment for depression (Spek et al., 2008b). In their one year follow-up, de Graaf and colleagues found those with more severe depressive symptoms were more likely to show reliable change following treatment with unsupported online CBT (de Graaf et al., 2010). In contrast with the online treatment literature (but in concordance with much of the face-to-face literature), Andersson and colleagues found that higher self-reported severity was associated with poorer outcome at 6 month follow-up in their study of online CBT for depression (Andersson et al., 2004).
Implications and rationale for hypothesis

It appears that there are differences between those with higher and lower initial depression symptoms in their response to CBT. However, findings from the face-to-face and online treatment literatures diverge with regard to this relationship. Those with higher symptoms appear to demonstrate poorer response to face-to-face individual and group-based psychotherapy. Although this association has been demonstrated in a trial of online CBT for depression (Andersson et al., 2004), there is evidence from two other online treatment studies that suggest that higher baseline depression severity is associated with better outcome in terms of depression symptom reduction or prevention (de Graaf et al., 2010; Spek et al., 2008b). Thus, in the current sample, it is hypothesised that higher baseline symptom severity will be associated with better outcome following the intervention.

6.2.5 Cognitive predictors of adherence

Cognitive or motivational factors refer to an individual's beliefs about the efficacy of a treatment and their ability to derive benefit from treatment. These factors may include positive and negative expectations regarding the usefulness of a particular treatment and the perceived suitability of the treatment to the needs of the individual. Motivational factors also include self-efficacy, or an individual's belief in their ability to complete the intervention to a level that enables them to derive maximum benefit. A benefit of examining motivational factors in relation to adherence is that, unlike demographic characteristics or baseline severity, these factors are potentially modifiable. An understanding how these factors relate to adherence may inform the development of interventions to prevent premature dropout from treatment.
There is evidence to suggest that pre-treatment expectations predict subsequent level of adherence to psychotherapeutic interventions for depression. Westra and colleagues found that positive pre-treatment expectations for symptom improvement following a group-based CBT intervention for depression were strongly associated with adherence (Westra et al., 2002). Positive expectations about treatment were also associated with increased likelihood of therapy continuation after initial intake among those seeking counselling at a university clinic (Longo, Lent, & Brown, 1992). In a sample of participants who completed individual CBT for anxiety and mood disorders, higher motivation (as indicated by willingness to prioritise therapy and readiness to change) was predictive of lower dropout from treatment (Keijsers, Schaap, Hoogduin, Hoogsteyns, & de Kemp, 1999). Concordantly, low motivation for treatment has been reported as a commonly endorsed reason for dropout from therapy (Bados, Balaguer, & Saldana, 2007).

Expectations may be a particularly relevant factor to consider with regard to adherence to online CBT treatments. Uncertainties exist among mental health professionals regarding the use of computerised treatments (Whitfield & Williams, 2004), and these views may influence the beliefs of those who may consider online treatments. Moreover, there is evidence to suggest that people may view face-to-face therapies as more acceptable and efficacious than online treatments (Mitchell & Gordon, 2007). Self-efficacy may play also play an important role in adherence to online interventions, as engagement with a largely self-directed intervention requires a considerable level of intrinsic motivation.

One study has examined expectations and adherence with regard to a computer-based self-help program for depression. Pre-treatment attitudes to the program (expectations and perceived credibility) were not found to be predictive of program completion (Cavanagh, Shapiro, Van Den Berg, Swain, Barkham, &
Proudfoot, 2009). However, ratings of the credibility of CBT principles in general were higher in program completers than non-completers. This suggests that beliefs regarding the therapeutic principles that underpin an online intervention may be influential in determining adherence.

Implications and rationale for hypothesis

Although evidence for the relationship between positive expectations and adherence is clear for face-to-face treatments, there is a lack of research examining this factor with regard to online treatments. In line with the evidence from studies of face-to-face treatments, it is hypothesised in the current sample that higher motivation to participate in the intervention (characterised by positive outcome expectancies) will be associated with greater adherence.

6.2.6 Cognitive predictors of outcome

Evidence from face-to-face treatment studies suggests that positive expectations about treatment and recovery are predictive of better outcome (Weinberger & Eig, 1999). In an early examination of university students with anxiety and depression, high motivation to receive therapy was predictive of both client and therapist ratings of overall symptom improvement (Keithly, Samples, & Strupp, 1980). A large randomised controlled trial of IPT, CBT and pharmacotherapy demonstrated that positive expectations of improvement predicted the probability of full recovery and reduced depressive symptoms at termination of treatment (Sotsky et al., 1991). In a follow-up of these participants, the authors found that therapeutic alliance and engagement in session mediated the relationship between participant expectations and outcome (Meyer, Pilkonis, Krupnick, Egan, Simmens, & Sotsky,
2002). Meyer and colleagues suggested that those with positive expectations may engage more in session (or with therapeutic materials) which may result in greater symptom reduction. Higher motivation and willingness to participate was also predictive of better outcome in outpatients receiving cognitive behavioural treatment for anxiety disorders (de Haan, van Oppen, van Balkom, Spinhoven, Hoogduin, & Van Dyck, 1997; Keijser, Hoogduin, & Schaap, 1994).

Only two studies have examined the role of cognitive and motivational variables in treatment outcome in computerised or Internet-based CBT interventions. In their evaluation of a computerised CBT program for depression, Cavanagh and colleagues found that expectations regarding the effectiveness of the program and beliefs about the credibility of CBT in general were not predictive of outcome (Cavanagh et al., 2009). However, de Graaf and colleagues reported a different result in their evaluation of an online CBT program for depression (de Graaf et al., 2009a). They found that expectancy, and not credibility, was positively related to long-term improvement in depression symptoms (de Graaf et al., 2009a).

Implications and rationale for hypothesis

Based on the evidence from studies of face-to-face treatments, and the study by de Graaf and colleagues, it is hypothesised that in the current sample, higher motivation to participate in the intervention (characterised by positive outcome expectancies) will predict better outcome.

6.2.7 Treatment adherence as a predictor of outcome

An early study reported that those who attended a greater number of face-to-face therapy sessions showed greater reductions in symptoms post-treatment (Howard,
Kopta, Krause, & Orlinsky, 1986). Moreover, several meta-analyses have found a positive relationship between homework compliance and outcome in cognitive behaviour therapy. Kazantzis and colleagues conducted a meta-analysis of 27 correlational and experimental studies, 16 of which examined the relationship between homework compliance and outcome (the remaining studies examined the effect of including homework assignments in therapy) (Kazantzis, Deane, & Ronan, 2000). In most studies, compliance was measured by therapist ratings and client self-report. Compliance with homework was associated with a small to moderate effect size for increased improvement in therapy (Kazantzis et al., 2000). In a recent update of this meta-analysis, a similar effect size was reported for the relationship between homework compliance and outcome across 23 studies, confirming that greater homework compliance was predictive of positive treatment outcome (Mausbach, Moore, Roesch, Cardenas, & Patterson, 2010).

In one study of online CBT and problem-solving therapy, no differences in depressive symptom improvement were found between those who completed treatment and those who did not (Warmerdam et al., 2008). However, de Graaf and colleagues found that several measures of adherence to online CBT for depression were associated with short and long-term improvement in depressive symptoms. Higher number of logins, greater total time spent using the program and greater use of an online mood diary were predictive of better outcome at 3 months post-intervention (de Graaf, Huibers, Riper, Gerhards, & Arntz, 2009b). Compliance with homework exercises was significantly associated with better treatment outcome at 9 months (de Graaf et al., 2009b).
Implications and rationale for hypothesis

Based on evidence from most face-to-face and online treatment studies, it is hypothesised that in the current sample greater adherence to the intervention will be associated with better outcome.

6.2.8 Self-reported reasons for non-adherence

Another method of investigating treatment adherence is to examine the reasons why people choose to discontinue treatment. In an early study, Mclean and Hakstian found that a majority of clients who dropped out of psychotherapy and relaxation training believed that the treatment they received was not appropriate for the specific problem they experienced (McLean & Hakstian, 1979). Simons and colleagues asked clients who discontinued either psychotherapy or antidepressant medication to rate the importance of various categories of reasons for dropout (Simons et al., 1984). Reasons were categorised as practical (issues concerning money, time and transportation), setting-based (issues concerning the location and atmosphere of the clinic), research-based (issues concerning participation in a research study), treatment-based (issues concerning the type and nature of the treatment received) and therapist-based (issues concerning the nature of the therapist). Practical and treatment-related issues were rated as most important with regard to attrition, namely issues associated with time pressure, availability of transport and the experience of side effects associated with medication (Simons et al., 1984). In a more recent study, clients who received psychotherapy in a university clinic most commonly reported low motivation, practical issues (transport problems, lack of time) and perceived improvement in symptoms as reasons for dropout (Bados et al., 2007).
Several studies of online treatments have examined self-reported reasons for dropout. Practical issues were the most commonly reported reasons for premature dropout in several studies, namely lack of time (Andersson et al., 2006; Andersson, Strömgren, Ström, & Lyttkens, 2002; Carlbring et al., 2006; Carlbring et al., 2007; Carlbring et al., 2001; Kenardy et al., 2003, 2006; Spek et al., 2007b; Titov et al., 2008a; Warmerdam et al., 2008) and difficulties with computer access or inadequate computer skills (Carlbring et al., 2007; Gerhards et al., 2011; Knaevelsrud & Maercker, 2007; Lange et al., 2003). Participants also reported disorder-specific and treatment-specific issues as reasons for dropout. Some participants discontinued treatment due to worsening of symptoms or the experience of concurrent physical and mental health problems (Carlbring et al., 2001; Richards et al., 2006; Titov et al., 2008a), whereas others dropped out prematurely due to improvement in symptoms (Lange et al., 2001; Titov et al., 2008b; Warmerdam et al., 2008). Commonly reported treatment-specific reasons for dropout included preference for face-to-face therapy or antidepressant medication (Andersson et al., 2005; Andersson et al., 2002; Carlbring et al., 2007; Klein et al., 2006; Lange et al., 2003; Richards et al., 2006; Titov et al., 2008b; Titov et al., 2008a; Warmerdam et al., 2008) and the belief that the online intervention was too demanding, too impersonal, ineffective or difficult to understand (Andersson et al., 2005; Andersson et al., 2002; Titov et al., 2008b; Titov et al., 2008a; Warmerdam et al., 2008).

However, only two of these studies employed a formal quantitative or qualitative methodology to examine self-reported reasons for dropout. Lange and colleagues (Lange et al., 2003) administered an additional questionnaire to participants via e-mail to determine their reasons for dropout, and Gerhards and colleagues (Gerhards et al., 2011) conducted a qualitative study of client experiences using an open-ended, semi-structured interview.
6.3 Aim and Hypotheses

The aim of this study is to investigate the predictors of adherence and outcome in a subsample of participants who were assigned to receive the Internet intervention in the ECCO trial.

With regard to *adherence to the intervention*, it is hypothesised that:

a. Female sex, younger age, having a higher level of education and being married will be associated with greater adherence to the intervention.

b. Employment status will be unrelated to adherence.

c. Lower baseline depression symptom severity will be associated with greater adherence to the intervention.

d. Higher baseline motivation to complete the intervention will be associated with greater adherence.

With regard to *predictors of outcome*, it is hypothesised that:

a. Being married, being employed and having a higher level of education will be associated with better outcome.

b. Participant age and sex will be unrelated to treatment outcome.

c. Higher baseline depression symptom severity will be associated with better outcome.

d. Higher baseline motivation to complete the intervention will be associated with better outcome.

e. Higher adherence to the intervention will be associated with better outcome.
6.4 Method

6.4.1 Participants

As already reported, 83 participants were randomised to receive either the Internet only \((n = 38)\) or Internet plus tracking \((n = 45)\) interventions in the ECCO trial. These participants form the sample that is analysed in the current study. The demographic characteristics of the sample are presented in Table 6.1. Similar to the full ECCO trial sample, this subsample was predominantly female and middle-aged. Most participants had never married. The average level of education indicated that most of the sample completed all years of primary and secondary schooling. Most of the sample reported that they were not currently in the labour force.
Table 6.1 Demographic characteristics of the subsample

<table>
<thead>
<tr>
<th>Demographic characteristic</th>
<th>n (%) (unless specified)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>39.7 (12.15)</td>
</tr>
<tr>
<td>Range</td>
<td>21 – 70</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male (%)</td>
<td>13 (15.7)</td>
</tr>
<tr>
<td>Female (%)</td>
<td>70 (84.3)</td>
</tr>
<tr>
<td>Relationship status</td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>30 (36.1)</td>
</tr>
<tr>
<td>Divorced</td>
<td>16 (19.3)</td>
</tr>
<tr>
<td>Married</td>
<td>18 (21.7)</td>
</tr>
<tr>
<td>Separated</td>
<td>14 (16.9)</td>
</tr>
<tr>
<td>De facto</td>
<td>3 (3.6)</td>
</tr>
<tr>
<td>Widowed</td>
<td>2 (2.4)</td>
</tr>
<tr>
<td>Total years of education</td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>13.7 (2.71)</td>
</tr>
<tr>
<td>Range</td>
<td>9 – 18</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>17 (20.5)</td>
</tr>
<tr>
<td>Part-time, looking for full time work</td>
<td>4 (4.8)</td>
</tr>
<tr>
<td>Part-time</td>
<td>20 (24.1)</td>
</tr>
<tr>
<td>Unemployed – looking for work</td>
<td>7 (8.4)</td>
</tr>
<tr>
<td>Not in the labour force</td>
<td>35 (42.2)</td>
</tr>
</tbody>
</table>

6.4.2 Procedure

The recruitment, assessment and intervention procedures have already been described in Chapter 3. In addition to the outcome assessments administered to all participants at pre-intervention and post-intervention, those allocated to the Internet only and Internet plus tracking conditions completed a scale designed to measure their motivation to participate in the intervention at pre-intervention (see Section 6.4.3
below for further details). At post-intervention, participants allocated to the Internet intervention conditions who completed less than three modules of MoodGYM were also followed up with a telephone interview to assess their reasons for non-adherence (details contained in Section 6.4.3).

6.4.3 Measures

Predictors

The following demographic and disorder severity variables were investigated as predictors of adherence and outcome: sex (male or female) age (years), level of education (total years of primary, secondary and further education), employment status (currently employed full-time/part-time or unemployed), and level of pre-intervention depression symptoms (Center for Epidemiologic Studies Depression Scale (CES-D; (Radloff, 1977). The measurement of these variables is fully described in Chapter 3.

Motivation to participate in the intervention was also investigated as a predictor. This was measured using the Nijmegen Motivation List for Prevention (NML-P) (Allart-van Dam, Hosman, & Keijsers, 2004). The NML-P consists of 48 statements and is designed to measure motivation to participate in a psychoeducational intervention. The scale consists of four factors: ‘Readiness to participate’, ‘Doubt’, ‘Support of participation’, and ‘Burden’. Readiness to participate refers to constructs such as self-efficacy, positive attitudes towards the intervention, and positive outcome expectations (e.g. ‘I expect that by completing this website program I will have fewer complaints’). Doubt refers to negative attitudes towards the intervention and negative perceptions of one’s ability to meet the demands of the intervention (e.g. ‘I doubt that this website program will solve my
problems’). Support of participation refers to the extent to which the significant others associated with the participant support their use of the intervention (e.g. ‘People around me appreciate me doing this website program’). Burden refers to the extent to which mental disorder symptoms cause distress to the participant (e.g. ‘I urgently need help to solve my problems’). Participants were asked to rate the extent to which each statement applied to them on a scale of 0 ‘Not at all applicable’ to 5 ‘Very applicable’. Items for each factor were summed and the ‘Doubt’ score was subtracted from the combined ‘Readiness to participate’, ‘Burden’ and ‘Support of participation’ scores to create a total scale score ranging from 0 to 210, with higher scores indicating higher motivation to participate in the intervention.

The original scale was modified to make it more relevant to the online intervention in the current study. The word ‘course’ was replaced with ‘website program’, and, in an effort to reduce the length of the scale, 6 items with the lowest factor loadings were removed, producing a shorter 42-item scale. Internal consistency for the four dimensions of the NML-P is high (Readiness to participate = 0.84, Doubt = 0.80, Support of participation = 0.81, and Burden = 0.80) (Allart-van Dam et al., 2004). Given that the NML-P is a recently developed scale, test-retest reliability and validity have yet to be extensively evaluated. However, the ‘Burden’ factor has been shown to correlate highly with pre-intervention depression, and a high score on the ‘Doubt’ and ‘Burden’ components and a low score on the ‘Support of participation’ component has been shown to significantly predict high post-intervention depression levels (Allart-van Dam et al., 2004). In the current sample, internal consistency for the entire scale was 0.66 ($N = 45$). Internal consistency was 0.83 for the Readiness to participate factor ($N = 47$), 0.81 for the Doubt factor ($N = 50$), 0.66 for the Support of participation factor ($N = 49$) and 0.78 for the Burden factor ($N = 49$). An estimate of
test-retest reliability was not available in the current study as the test was administered at one time-point only.

**Treatment adherence**

Adherence data were directly downloaded from the administration interface of the MoodGYM and BluePages websites. Adherence was a continuous variable defined as the number of completed weeks of the intervention, ranging from 0 to 6. Completion of 1 week of the intervention was defined as having at least one visit to the BluePages website and the completion of no MoodGYM modules. Completion of weeks 2 to 6 of the intervention was measured by number of MoodGYM modules completed, in addition to a visit to the BluePages website in week 1. Participants who visited the BluePages website in week 1 and completed all 5 modules of MoodGYM were considered to have achieved full adherence to the intervention.

**Treatment outcome**

‘Better’ treatment outcome was defined as positive change in depressive symptoms on the CES-D from pre- to post-intervention, pre-intervention to 6 month follow-up and pre-intervention to 12 month follow-up. Individual post-intervention, 6 month follow-up and 12 month follow-up depression scores were subtracted from pre-intervention depression scores to create a change score for each time point, with positive scores indicating an improvement in symptoms.

**Reasons for non-adherence to the intervention**

At post-intervention, a brief telephone interview was conducted with participants who completed less than three modules of MoodGYM. A cutoff of at least three modules was chosen as this is the minimum amount of MoodGYM that has
been shown to provide therapeutic benefit and depression symptom reduction (Christensen et al., 2006). The aim of the telephone interview was to investigate the reasons why participants did not complete the Internet intervention in its entirety. Participants who commenced the MoodGYM intervention but completed less than 3 modules were administered the entire interview. However, participants who completed no MoodGYM modules were instead asked only to provide their main reason for not commencing the intervention. Three attempts were made to contact participants by telephone. Those who could not be contacted by this method were mailed a pencil and paper version of the interview.

Reasons for non-adherence were assessed using a modified version of the Internet Intervention Adherence Measure (Ritterband, Ardalan, Thorndike, Magee, Saylor, Cox, Sutphen, & Borowitz, 2008; Ritterband, Borowitz, Cox, Kovatchev, Walker, Lucas, & Sutphen, 2005). The Internet Intervention Adherence Measure is a telephone administered, 27-item scale consisting of forced choice and open-ended questions. Participants are provided with a list of common reasons for non-adherence and asked to indicate if each reason played ‘no part’, ‘a little part’, or ‘a major part’ in their decision to discontinue the intervention. Participants also have the opportunity to indicate additional reasons in open ended questions. The potential reasons for non-adherence are listed under the following main themes: Internet/computer/technical difficulties (e.g. ‘My Internet connection did not work’), Personal/family issues (e.g. ‘I didn’t have time in my schedule’), Intervention-general issues (e.g. ‘The program was too hard to navigate’), and Intervention-specific issues (e.g. ‘The games were not very reinforcing’). The scale was originally designed for use with an Internet-based paediatric encopresis intervention (Ritterband, Cox, Walker, Kovatchev, McKnight, Patel, Borowitz, & Sutphen, 2003). In order to adapt the scale for the current trial, the items in the Intervention-specific issues section were modified to reflect the
BluePages and MoodGYM programs. Two additional categories of reasons for non-adherence were added based on a review of the literature of the factors associated with non-adherence to treatment for depression: ‘Engagement issues’ and ‘Disease-specific issues’. Items in the ‘Engagement issues’ section were designed to assess participants’ confidence and attitudes towards using a computer for mental health help. Example items included: ‘I don’t like using the computer for help with personal problems’ and ‘I don’t have very good computer (or Internet) skills’. Items in the ‘Disease-specific’ section were designed to measure the extent to which the symptoms of depression impacted on participants’ use of the intervention. Example items included: ‘I felt too depressed to work on the program’ and ‘I don’t think that depression can really be cured so I didn’t think the program would make any difference’.

6.4.4 Statistical analysis

Linear regression analyses were used to examine the predictors of adherence and outcome. For analysis, relationship status was dichotomised into ‘married or defacto’ and ‘never married, divorced, separated or widowed’. Employment status was dichotomised into ‘employed full or part time’ and ‘unemployed or not in the labour force’. The first series of analyses investigated the predictors of treatment adherence. First, all predictors were analysed using separate linear regressions. Then all predictors were entered into one regression model simultaneously. Linear regression was also used to examine the predictors of treatment outcome, following the same method described above. First, all predictors were examined separately, and then entered simultaneously into a final model.
Two influential outlying cases were identified in the analysis of the primary and secondary ECCO trial outcomes. All regression analyses were conducted with the outliers included in and excluded from the data. For brevity, the results reported here are for the analyses conducted with the outliers excluded from the data. Additional results are reported when differences were found when the outliers were included in the analyses.

Given that the NML-P is a newly developed measure and a shortened version of the scale was used in the current study, it was planned to investigate the factor structure of the NML-P in this sample using factor analysis. However, the achieved sample size was deemed to low to obtain a reliable or stable factor structure (MacCallum, Widaman, Zhang, & Hong, 1999).

6.5 Results

6.5.1 Adherence to the intervention

Adherence was assessed by the number of completed weeks of the intervention. Table 6.2 shows the number of weeks of the intervention completed by participants in the Internet only and Internet plus tracking conditions. Just over one quarter of participants in the Internet only (15.8%) and Internet plus tracking (17.8%) conditions completed all 6 weeks of the intervention. Just under half of participants in the Internet only condition and approximately one quarter of participants in the Internet plus tracking program did not complete any weeks of the intervention. Participants in the Internet only condition completed an average of 2.1 (SD = 2.36) weeks of the intervention while participants in the Internet plus tracking condition completed an average of 2.8 weeks (SD = 2.19). There was no significant difference in the number
of weeks of the intervention completed for the Internet only and Internet plus tracking conditions ($t(81) = -1.39, p = .17$).

### Table 6.2 Number of weeks of the intervention completed by participants in the Internet only and Internet plus tracking conditions

<table>
<thead>
<tr>
<th>Number of weeks completed</th>
<th>Intervention components completed</th>
<th>Internet only (n = 38)</th>
<th>Internet plus tracking (n=45)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>None</td>
<td>17 (44.7%)</td>
<td>11 (24.4%)</td>
</tr>
<tr>
<td>1</td>
<td>BluePages</td>
<td>2 (5.3%)</td>
<td>3 (6.7%)</td>
</tr>
<tr>
<td>2</td>
<td>BluePages + MoodGYM Module 1</td>
<td>6 (15.8%)</td>
<td>8 (17.8%)</td>
</tr>
<tr>
<td>3</td>
<td>BluePages + MoodGYM Module 2</td>
<td>1 (2.6%)</td>
<td>5 (11.1%)</td>
</tr>
<tr>
<td>4</td>
<td>BluePages + MoodGYM Module 3</td>
<td>3 (7.9%)</td>
<td>6 (13.3%)</td>
</tr>
<tr>
<td>5</td>
<td>BluePages + MoodGYM Module 4</td>
<td>3 (7.9%)</td>
<td>4 (8.9%)</td>
</tr>
<tr>
<td>6</td>
<td>BluePages + MoodGYM Module 5</td>
<td>6 (15.8%)</td>
<td>8 (17.8%)</td>
</tr>
</tbody>
</table>

### 6.5.2 Motivation to participate in the intervention

Of the 83 participants allocated to either the Internet only or Internet plus tracking conditions, 51 (61.5%) participants completed the motivation to participate in a depression intervention survey (NML-P). Scores on this survey ranged from 7 to 89, with a mean score of 55.7 (SD = 16.6).

### 6.5.3 Correlations between predictor, adherence and outcome variables

Table 6.3 shows the correlations between predictor, adherence and outcome variables. There were no significant associations between predictor variables, with the exception of relationship status and pre-intervention motivation, which were
negatively correlated. Adherence was significantly positively correlated with level of education and pre-intervention motivation. As expected, outcome at post-intervention (depression symptom change from pre-intervention) was significantly correlated with outcome (depression symptom change from pre-intervention) at 6 month follow-up and at 12 month follow-up. Pre-intervention depression severity was significantly positively correlated with depression symptom change from pre-intervention to post-intervention, 6 month follow-up and 12 month follow-up.
Table 6.3 Correlation matrix for predictor, adherence and outcome variables

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Age</th>
<th>Total years of education</th>
<th>Employment status</th>
<th>Relationship status</th>
<th>Pre-intervention depression</th>
<th>Pre-intervention motivation</th>
<th>Adherence</th>
<th>Outcome (Post-intervention)</th>
<th>Outcome (6 months)</th>
<th>Outcome (12 months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.174</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total years of education</td>
<td>-0.072</td>
<td>0.019</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td>-0.039</td>
<td>-0.151</td>
<td>0.166</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship status</td>
<td>0.182</td>
<td>0.137</td>
<td>-0.168</td>
<td>-0.021</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-intervention depression</td>
<td>0.001</td>
<td>-0.159</td>
<td>-0.052</td>
<td>-0.039</td>
<td>-0.130</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-intervention motivation</td>
<td>-0.013</td>
<td>-0.182</td>
<td>0.226</td>
<td>0.018</td>
<td>-0.369**</td>
<td>-0.085</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adherence</td>
<td>0.081</td>
<td>-0.144</td>
<td>0.304**</td>
<td>0.024</td>
<td>-0.035</td>
<td>-0.037</td>
<td>0.287*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome (Post-intervention)</td>
<td>-0.033</td>
<td>-0.201</td>
<td>0.047</td>
<td>-0.114</td>
<td>0.020</td>
<td>0.335*</td>
<td>-0.124</td>
<td>0.121</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome (6 months)</td>
<td>-0.138</td>
<td>-0.132</td>
<td>0.130</td>
<td>-0.077</td>
<td>0.105</td>
<td>0.489**</td>
<td>-0.195</td>
<td>-0.034</td>
<td>0.679**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Outcome (12 months)</td>
<td>0.080</td>
<td>-0.029</td>
<td>0.078</td>
<td>-0.145</td>
<td>0.086</td>
<td>0.600**</td>
<td>-0.039</td>
<td>-0.045</td>
<td>0.673**</td>
<td>0.730**</td>
<td>1</td>
</tr>
</tbody>
</table>

*Correlation significant at the .05 level, **Correlation significant at the .01 level
6.5.4 Predictors of adherence to the intervention

Each of the following predictors were analysed separately in a series of univariate linear regressions: sex (male or female), age (years), total years of education, relationship status (married/defacto or divorced/separated/widowed/never married), employment status (employed or not employed), pre-intervention depression symptom severity, and pre-intervention motivation to complete the intervention. Results of these analyses demonstrated that better adherence was significantly associated with pre-intervention motivation and level of education. Those with higher levels of motivation ($\beta = .04$, 95% CI: .001 to .08, $p = .04$) and a greater number of total years of education ($\beta = .26$, 95% CI: .07 to .44, $p = .007$) had higher levels of adherence to the intervention.

Table 6.4 shows the results of the final regression model with all predictors entered simultaneously. Together, the predictors accounted for approximately 17% of the variability in adherence (Overall model: $F(7, 39) = 1.16$, $p = .35$, $R^2 = .17$). With all other predictors taken into account, level of education and pre-intervention motivation were no longer significant predictors of adherence. When the outliers were included in the data, higher education was a significant unique predictor of better adherence in the final regression model ($\beta = .26$, 95% CI: .003 to .51, $p = .048$).
Table 6.4 Multiple linear regression analysis predicting adherence for participants in the Internet only and Internet plus tracking conditions

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>s.e. β</th>
<th>Lower</th>
<th>Upper</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (Female)</td>
<td>.40</td>
<td>.94</td>
<td>-1.50</td>
<td>2.29</td>
<td>.68</td>
</tr>
<tr>
<td>Age</td>
<td>-.02</td>
<td>.03</td>
<td>-.08</td>
<td>.04</td>
<td>.46</td>
</tr>
<tr>
<td>Total years of education</td>
<td>.24</td>
<td>.13</td>
<td>-.03</td>
<td>.49</td>
<td>.08</td>
</tr>
<tr>
<td>Employment status (Employed)</td>
<td>-.18</td>
<td>.68</td>
<td>-1.56</td>
<td>1.20</td>
<td>.79</td>
</tr>
<tr>
<td>Relationship status (Married)</td>
<td>.53</td>
<td>.85</td>
<td>-1.18</td>
<td>2.25</td>
<td>.53</td>
</tr>
<tr>
<td>Pre-intervention depression</td>
<td>-.002</td>
<td>.03</td>
<td>-.07</td>
<td>.07</td>
<td>.96</td>
</tr>
<tr>
<td>Pre-intervention motivation</td>
<td>.04</td>
<td>.02</td>
<td>-.01</td>
<td>.08</td>
<td>.15</td>
</tr>
</tbody>
</table>

6.5.5 Predictors of outcome

Linear regression analyses were used to investigate the predictors of better outcome (improved depressive symptoms) at post-intervention, 6 month follow-up and 12 month follow-up in participants allocated to the Internet only and Internet plus tracking conditions. Intervention adherence was included as an additional predictor in these analyses. First, all predictors were analysed separately using univariate linear regressions. All predictors were unrelated to outcome from pre- to post-intervention except for pre-intervention depression symptom severity. Those with higher baseline depression severity (β = .39, 95% CI: .05 to .72, p = .03) showed greater improvement in symptoms from pre- to post-intervention. This analysis was also significant with the outliers included in the data.

Table 6.5 displays the results of the final regression model with all predictors entered simultaneously. Together, the predictors accounted for approximately 21% of
the variability in outcome from pre- to post-intervention (Overall model: $F(8, 26) = .85, p = .57, R^2 = .21$). Taking all predictors into account, none were significantly associated with outcome at post-intervention. When the outliers were included in the analysis, lower motivation was predictive of better outcome both in the univariate analysis ($\beta = -.30, 95\% CI: -.58 to -.02, p = .03$) and when all the predictors were modelled together ($\beta = -.34, 95\% CI: -.66 to -.01, p = .042$).

Table 6.5 Multiple linear regression analysis predicting better outcome at post-intervention for participants in the Internet only and Internet plus tracking conditions

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>s.e. $\beta$</th>
<th>95% Confidence Interval</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (Female)</td>
<td>-3.06</td>
<td>5.92</td>
<td>-15.23 - 9.11</td>
<td>.61</td>
</tr>
<tr>
<td>Age</td>
<td>-.21</td>
<td>.19</td>
<td>-.59 - .17</td>
<td>.27</td>
</tr>
<tr>
<td>Total years of education</td>
<td>.41</td>
<td>.84</td>
<td>-1.32 - 2.14</td>
<td>.63</td>
</tr>
<tr>
<td>Employment status (Employed)</td>
<td>-3.65</td>
<td>4.30</td>
<td>-12.48 - 5.19</td>
<td>.40</td>
</tr>
<tr>
<td>Relationship status (Married)</td>
<td>1.57</td>
<td>5.36</td>
<td>-9.44 - 12.59</td>
<td>.77</td>
</tr>
<tr>
<td>Pre-intervention depression</td>
<td>.34</td>
<td>.21</td>
<td>-.09 - .78</td>
<td>.11</td>
</tr>
<tr>
<td>Pre-intervention motivation</td>
<td>-.13</td>
<td>.15</td>
<td>-.44 - .18</td>
<td>.39</td>
</tr>
<tr>
<td>Intervention adherence</td>
<td>.72</td>
<td>1.01</td>
<td>-1.36 - 2.79</td>
<td>.48</td>
</tr>
</tbody>
</table>

Univariate analyses revealed that higher pre-intervention depression ($\beta = .62, 95\% CI: .26 to .98, p = .001$) was significantly associated with better outcome at 6 month follow-up. Results of the final regression model with all predictors entered simultaneously are presented in Table 6.6. Together, the predictors accounted for approximately 38% of the variability in outcome from pre-intervention to 6 month follow-up (Overall model: $F(8, 24) = 1.84, p = .12, R^2 = .38$). With all other
predictors taken into account, pre-intervention depression severity remained significantly associated with outcome. Those with higher baseline depression symptoms showed better outcome from pre-intervention to 6 month follow-up. When the outliers were included in the analysis, lower motivation was also predictive of better outcome both in the univariate analysis ($\beta = -0.42$, 95% CI: -0.74 to -0.09, $p = 0.01$) and when all the predictors were modelled together ($\beta = -0.36$, 95% CI: -0.70 to -0.02, $p = 0.04$).

Table 6.6 Multiple linear regression analysis predicting better outcome at 6 month follow-up for participants in the Internet only and Internet plus tracking conditions

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>s.e. $\beta$</th>
<th>95% Confidence Interval</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (Female)</td>
<td>-6.84</td>
<td>5.98</td>
<td>-19.18 - 5.50</td>
<td>.26</td>
</tr>
<tr>
<td>Age</td>
<td>-0.19</td>
<td>0.19</td>
<td>-0.58 - 0.20</td>
<td>.32</td>
</tr>
<tr>
<td>Total years of education</td>
<td>1.21</td>
<td>0.85</td>
<td>-0.55  - 2.97</td>
<td>.17</td>
</tr>
<tr>
<td>Employment status (Employed)</td>
<td>-3.27</td>
<td>4.34</td>
<td>-12.23 - 5.68</td>
<td>.46</td>
</tr>
<tr>
<td>Relationship status (Married)</td>
<td>6.22</td>
<td>5.41</td>
<td>-4.94 - 17.38</td>
<td>.26</td>
</tr>
<tr>
<td>Pre-intervention depression</td>
<td>0.61</td>
<td>0.21</td>
<td>0.18 - 1.05</td>
<td>.008</td>
</tr>
<tr>
<td>Pre-intervention motivation</td>
<td>-0.13</td>
<td>0.15</td>
<td>-0.44 - 0.19</td>
<td>.42</td>
</tr>
<tr>
<td>Intervention adherence</td>
<td>-0.28</td>
<td>1.02</td>
<td>-2.38 - 1.83</td>
<td>.79</td>
</tr>
</tbody>
</table>

Pre-intervention depression severity was also associated with outcome at 12 month follow-up. Univariate analyses revealed that higher pre-intervention depression ($\beta = 0.78$, 95% CI: 0.40 to 1.15, $p < 0.001$) predicted better outcome at 12 month follow-up. This association remained significant in the final model with all the predictors entered simultaneously (see Table 6.7). All predictors accounted for
approximately 44% of the variability in outcome from pre-intervention to 12 month follow-up (Overall model: $F(8, 17) = 1.68, p = .18, R^2 = .44$). The same result was obtained when the outliers were included in the analysis.

**Table 6.7** Multiple linear regression analysis predicting better outcome at 12 month follow-up for participants in the Internet only and Internet plus tracking conditions

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>s.e. $\beta$</th>
<th>95% Confidence Interval</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (Female)</td>
<td>2.28</td>
<td>6.86</td>
<td>-12.20 to 16.76</td>
<td>.74</td>
</tr>
<tr>
<td>Age</td>
<td>.04</td>
<td>.22</td>
<td>-.42 to .49</td>
<td>.87</td>
</tr>
<tr>
<td>Total years of education</td>
<td>.89</td>
<td>.98</td>
<td>-1.17 to 2.95</td>
<td>.38</td>
</tr>
<tr>
<td>Employment status (Employed)</td>
<td>-3.65</td>
<td>4.98</td>
<td>-14.16 to 6.87</td>
<td>.47</td>
</tr>
<tr>
<td>Relationship status (Married)</td>
<td>6.38</td>
<td>6.21</td>
<td>-6.72 to 19.48</td>
<td>.32</td>
</tr>
<tr>
<td>Pre-intervention depression</td>
<td>.83</td>
<td>.24</td>
<td>-.32 to 1.34</td>
<td>.003</td>
</tr>
<tr>
<td>Pre-intervention motivation</td>
<td>.07</td>
<td>.18</td>
<td>-.30 to .44</td>
<td>.68</td>
</tr>
<tr>
<td>Intervention adherence</td>
<td>-.53</td>
<td>1.17</td>
<td>-3.00 to 1.94</td>
<td>.66</td>
</tr>
</tbody>
</table>

6.5.6 **Reasons for non-adherence to the intervention**

Forty-seven (out of a potential 83) post-intervention surveys were received from participants in the Internet only and Internet plus tracking conditions. Of these, 25 (53.2%) participants completed at least three modules of the MoodGYM program, rendering them ineligible to complete a non-adherence survey. Of the remaining 22 eligible participants, 12 (54.6%) participants were unable to be contacted by telephone and failed to complete and return a mailed version of the survey. Ten participants completed the non-adherence survey, two of whom did not complete any modules of
the MoodGYM program. These participants cited lack of time, privacy issues and problems with excessive alcohol use as their main reasons for not commencing the program.

As described above, the survey categorised reasons for non-adherence into the following: Internet/computer/technical issues, personal/family issues, disease-specific issues, general intervention issues, specific intervention issues and issues concerning engagement with Internet-based treatments. In terms of computer related issues, participants reported the following as reasons that either played a small or a major part in their inability to complete the program: a slow or unreliable Internet connection ($n = 4, 50.0\%$), computer wasn’t working ($n = 3, 37.5\%$), and no access to a computer or the Internet at home ($n = 2, 25.0\%$). In terms of personal or family issues, participants reported the following as reasons that were either a small or major hindrance in their use of the program: forgetfulness ($n = 2, 25.0\%$), lack of time ($n = 4, 50.0\%$), illness ($n = 2, 25.0\%$), lack of available help to access the websites ($n = 1, 12.5\%$), and unexpected family commitments ($n = 1, 12.5\%$). In terms of disease specific issues, the following were reported as minor or major reasons for discontinuing the program: feeling too depressed ($n = 5, 62.5\%$), feeling unconvinced that the program would ease depression ($n = 1, 12.5\%$), the belief that depression cannot be helped ($n = 1, 12.5\%$), discomfort divulging personal issues ($n = 1, 12.5\%$), feeling undeserving of treatment ($n = 1, 12.5\%$), the belief that they can recover on their own ($n = 1, 12.5\%$), and the belief that they had already received maximum benefit from the program ($n = 2, 25.0\%$). In terms of general intervention issues, 2 (25.0%) found the program too difficult to navigate, 3 (37.5%) believed the program would take too long to complete, 4 (50.0%) believed there was too much text to read, 1 (12.5%) found the computer screen too difficult to read, 1 (12.5%) found the program too boring, and 2 (25.0%) found the program too repetitive. In terms of issues specific to the MoodGYM
program, 4 (50.0\%) reported that CBT is too complicated and difficult, 1 (12.5\%) reported a previous lack of success with self-help programs, 2 (25.0\%) reported that they did not feel that the examples in the program were relevant to them, and 2 (25.0\%) reported that they found the material in the program too confronting. In terms of engagement issues, 1 participant (12.5\%) reported that they do not enjoy using the computer in general, 1 (12.5\%) felt that they did not have adequate computer skills, and 3 (37.5\%) reported that they preferred face-to-face help from a counsellor or therapist.

6.6 Discussion

6.6.1 Predictors of adherence

With regard to demographic predictors of adherence, partial support was found for hypothesis (a) (that female sex, younger age, having a higher level of education and being married will be associated with greater adherence to the intervention) and full support was found for hypothesis (b) (that employment status will be unrelated to adherence). Level of education was related to adherence to the intervention, but sex of the participant, age and being married were not. Educational level was no longer significant when all other predictors were taken into account. Nevertheless, the result suggests that higher education may be predictive of better adherence in online interventions, a finding that is consistent with previous studies (Batterham et al., 2008; Spek et al., 2008b; Warmerdam et al., 2008). An association between education and better outcome may reflect the fact that the MoodGYM and BluePages programs are primarily text-based, and that effective engagement with CBT interventions requires a necessary level of verbal and conceptual reasoning skill. Those with higher levels of education may also be more proficient in their use of computers and the Internet,
which may increase their propensity to engage with a treatment that is delivered online.

Age, relationship status and sex of the participant were unrelated to adherence. Both younger and older adults showed similar rates of intervention completion in the current study. This contrasts with the findings of a previous study of adherence to MoodGYM in spontaneous community users (Batterham et al., 2008), which found that younger age was associated with better adherence. Batterham and colleagues suggested that older adults may be less adherent to MoodGYM because the exercises and examples in the program were originally designed to appeal to a youth audience. However, according to recent community user data from MoodGYM, program access and usage is evenly split between adults aged 25 to 34 years, 35 to 44 years, and 45 to 64 years (Bennett, 2011). This suggests that the program holds some appeal for adults across different age groups. Moreover, the lack of an effect for age on adherence may reflect the universal applicability of some of the program content and the ability of users to adapt content to fit their own life stage and personal circumstances.

Relationship status was also unrelated to adherence with similar rates of intervention completion found in those who were married compared to those who were not. This finding is in contrast to the few existing studies that demonstrated an association between being married and better adherence to treatment (Hillis et al., 1993; Lange et al., 2003; van Straten et al., 2008; Wierzbicki & Pekarik, 1993). It was suggested in these studies that those in married relationships receive continued support for treatment from their partner and as a result, have a lower risk of dropout. Indeed, social support has been linked to better adherence to medical treatment regimens (DiMatteo, 2004), but social support can be provided by someone other than a romantic partner. It is possible that those who were unmarried received support from other close sources to undertake the intervention. It is also possible that in the
context of self-help interventions, the role of social support is minimal in determining adherence, and instead, intrinsic factors are more influential in treatment compliance than external reinforcers.

Males and females also showed similar levels of adherence to the intervention. Although the evidence for the effect of sex on adherence is equivocal, some studies suggest that females have higher levels of adherence to treatment than males (Batterham et al., 2008; Lange et al., 2003; Thase et al., 1994). It has been hypothesised that females may have a greater level of comfort with personal disclosure than males (Dindia & Allen, 1992), and for this reason, may be less likely to drop out of therapy. Engagement and disclosure are more anonymous in online environments than in face-to-face settings, so disclosure may not be as significant a factor in Internet treatments. However, Batterham and Lange both found sex differences in adherence in their studies of online interventions. The difference between the current study and the studies by Batterham and Lange may be due to the type of sample in the ECCO trial, which was recruited through a telephone counselling helpline.

As hypothesised, employment status was found to be unrelated to treatment adherence. This finding is consistent with studies of face-to-face treatment that have found no association between employment status and adherence (Oei & Kazmierczak, 1997; Persons et al., 1988; Simons et al., 1984). No previous studies of adherence to online interventions have examined employment status. Although this single result is insufficient to warrant a definitive statement on the matter, it does raise the possibility that employment status has minimal bearing on an individual’s use of an online treatment program. Studies of face-to-face treatments suggest that a relationship exists between dropout and lower income and lower socioeconomic status (Arnow et al., 2007; Wierzbicki & Pekarik, 1993). However, income may not be a critical issue
in adherence to online CBT given the possible lower cost of this treatment compared to face-to-face CBT.

No support was found for hypothesis (c) (that lower baseline depression symptom severity will be associated with greater adherence to the intervention). Baseline depression severity was not a significant predictor of adherence in this study. Findings regarding this predictor in the online treatment literature are mixed. Studies reporting high symptom severity and better adherence suggest that those with lower symptom severity may lack sufficient motivation to continue treatment. However, studies that have found the opposite relationship suggest that risk of dropout from treatment is increased when symptom severity is high. It is also possible that the lack of effect on adherence found for those with lower and higher severity reflects the restricted range of symptoms in the current sample (i.e. those considered ‘less severe’ were actually highly symptomatic). The high average baseline depression severity in the current sample may also partially account for the low rates of adherence observed.

Some support was found for hypothesis (d) (that higher baseline motivation to complete the intervention will be associated with greater adherence). Univariate analysis indicated that those with higher levels of motivation to participate in the intervention showed greater levels of adherence. This finding is consistent with previous studies examining this variable (Keijzers et al., 1999; Longo et al., 1992; Westra et al., 2002). It is also consistent with the theory of planned behaviour, which posits that attitudes towards a behaviour and self-efficacy to perform that behaviour are predictive of behavioural intentions (Ajzen, 1991). It might be expected that those with higher positive expectations, lower levels of doubt and higher perceived need for treatment would be more likely to engage with the intervention. Moreover, there is evidence for an association between higher motivation and adherence to online
treatments for other health issues including smoking, physical activity and diabetes self-management (Wangberg, Bergmo, & Johnsen, 2008).

6.6.2 Predictors of outcome

In contrast to hypothesis (a), being married, being employed, and having higher levels of education did not predict better outcome following treatment. This was true for outcome at post-intervention, 6 month follow-up and 12 month follow-up.

Being married was unrelated to outcome in the current study. This finding is consistent with the only study that has examined relationship status and outcome in online CBT (Spek et al., 2008b). However, there is evidence that being married is predictive of better outcome in face-to-face treatment (Jarrett et al., 1991; Sotsky et al., 1991). Further evidence is required to elucidate this relationship and the factors which are responsible for any difference in online and face-to-face predictors of outcome.

No association was found between employment status and outcome, a finding which is consistent with one study of online CBT for depression (Warmerdam et al., 2008), but which contrasts that of another which reported that unemployment was linked to worse outcome following online CBT (de Graaf et al., 2010). The reason for the discrepancy with the de Graaf study is unclear; additional evidence is required to investigate the role of unemployment and outcome in online CBT.

Level of education was also unrelated to outcome in the current study. Although consistent with the findings of an online depression study reported by Andersson and colleagues (Andersson et al., 2004), this result is surprising, given that most previous studies have found a relationship between educational level and outcome (Ronalds et al., 1997; Spek et al., 2008b), and because CBT is believed to
require a reasonable level of conceptual reasoning skill. However, level of education in the current sample was high, and the lack of a significant effect may reflect restriction in the range of levels of education among participants. Those who chose to participate in the ECCO trial may have had higher levels of education and better computer skills than those who did not.

As predicted by hypothesis (b), age and sex of the participant were unrelated to outcome. This is consistent with other studies that suggest that males and females respond equally well to CBT (Allart-van Dam et al., 2007; Andersson et al., 2004; Clarke et al., 2002; de Graaf et al., 2010; Jarrett et al., 1991; Thase et al., 1994). Most of the studies examining this factor, however, were conducted with face-to-face treatments, so there has been less certainty regarding this relationship in online treatment. The current result adds weight to the findings of a small complement of existing online depression studies (Andersson et al., 2004; Clarke et al., 2002; de Graaf et al., 2010) which have concluded that online CBT is equally effective for men and women.

Previous studies examining age and outcome in face-to-face treatments have found that younger age was associated with better outcome (Ronalds et al., 1997; Seivewright et al., 1998), potentially because younger adults may experience fewer, less prolonged episodes of depression than older adults. However, age does not appear to influence outcome in online treatments (Andersson et al., 2004; Clarke et al., 2002; de Graaf et al., 2010; Spek et al., 2008b). This raises the possibility that some other mechanism is responsible for the association between age and outcome in face-to-face therapy. It is also possible that in the current study, age was not associated with depression chronicity. However, without a direct measure of illness duration, this possibility could not be examined for the current data.
Full support was found for hypothesis (c) (that higher baseline depression symptom severity will be associated with better outcome). Higher pre-intervention level of depression was associated with greater improvement in depression symptoms from pre- to post-intervention, from pre-intervention to 6 month follow-up and from pre-intervention to 12 month follow-up. Higher depression symptom severity has been shown previously to predict better outcome in both online and face-to-face treatment studies (de Graaf et al., 2010; Persons et al., 1988; Ronalds et al., 1997; Spek et al., 2008b; Wang et al., 2002), and the current finding is consistent with this. This finding may reflect that higher initial severity allows greater potential for symptom improvement following treatment. It also provides some evidence for the suitability of the BluePages and MoodGYM interventions for those with severe depressive symptoms.

Surprisingly, no support was found for hypothesis (d) (that higher baseline motivation will be associated with better outcome). Pre-intervention motivation for treatment was unrelated to outcome. It is unclear why this is the case, based on evidence from previous studies that suggests that positive expectations about treatment are associated with greater improvement (de Haan et al., 1997; Keijsers et al., 1994; Keithly et al., 1980; Sotsky et al., 1991; Weinberger & Eig, 1999). There are several possible explanations for the lack of relationship found between expectation and outcome. It may be true that for some participants, pre-treatment expectations become a self-fulfilling prophecy, in that those who expect to improve do improve. However, it is also possible that those who enter treatment with no expectations benefit because they have less potential to become dissatisfied with the treatment and disengage. The simultaneous operation of these factors could result in a failure to find an association between expectations and outcome. However, this explanation is less consistent with the finding of a positive association between
expectation and adherence and the finding, discussed below, that treatment adherence was unrelated to outcome.

No support was found for hypothesis (e) (that higher adherence to the intervention will be associated with better outcome). Unexpectedly, treatment adherence was unrelated to outcome. This contrasts findings from previous studies that have reported that a greater number of sessions and greater adherence to homework exercises is related to greater symptom improvement (de Graaf et al., 2009b; Howard et al., 1986; Kazantzis et al., 2000; Mausbach et al., 2010). It is possible, however, that in the current study, participants who dropped out at earlier stages of the intervention had already received a sufficient dose of the intervention for symptom improvement. It has been suggested previously that those who drop out prematurely from Internet interventions may in fact be 'e-attainers' (Christensen & Mackinnon, 2006). There is also some evidence from face-to-face studies to suggest that symptom improvement can occur early in treatment following the completion of psychoeducation and before the formal introduction of active cognitive restructuring (Ilardi & Craighead, 1994, 1999).

6.6.3 Reasons for non-adherence to the intervention

Participants in the current study reported reasons for dropout that were similar to those found in other studies. Lack of time, issues with their Internet connection and feeling too depressed were commonly reported reasons for attrition in those who were non-adherent to the intervention. The sample size was small (n = 10) and thus there are limitations to the specific conclusions that can be drawn regarding reasons for dropout. However, half of those who completed the non-adherence telephone interview reported that they found CBT too complicated and that they found that the
intervention was too text-based. Graphics and animations may be a useful technique for enhancing engagement with web-based interventions for this subgroup. Although CBT is inherently complex and can be personally confronting, a predominantly visual presentation of the therapeutic concepts may help to ease these issues. It may be beneficial for future versions of the intervention to be developed with a stronger emphasis on the visual presentation of therapeutic concepts. Moreover, a greater reliance on non-text-based presentation may help to ease frustration in those with lower levels of reading skill.

The feedback provided by users of these programs is useful not only for the further development and re-development of online interventions, but it also enables the development and testing of strategies that can be implemented before and during the delivery of online treatments to prevent dropout. For example, providing targeted information to users emphasising the accessibility of online interventions, how to manage technical issues, and the range of places where the Internet can be accessed may help to address issues related to lack of time, lack of access and problems with Internet connections.

6.6.4 Limitations

Attrition (failure to complete follow-up assessments) was high in the ECCO trial, and thus, the findings regarding the predictors of adherence and outcome may not be as reliable as those found in other studies. Moreover, it is possible that the null findings observed in this study are due to a small sample size and uneven distributions of participants on some variables (i.e. sex, relationship status). If small or moderate effect sizes exist for these predictors, the analyses may have been inadequately
powered to detect them. Thus, replication of these analyses is required in a larger sample.

Although the measure of adherence used in the current study was objective (rather than based on participant self-report), it provided little information about the degree to which participants engaged with the intervention content. It is possible that the lack of association found between adherence and outcome is partly due to the way adherence was assessed. Adherence was measured using the number of recorded logins to BluePages and the number of MoodGYM modules completed by participants. These data provide no information about the sections of the BluePages website that participants visited and how much content they read. It also does not fully indicate how much participants engaged with MoodGYM content, as it is possible that some participants quickly clicked through each page of the module to reach the end and ‘complete’ the module.

This study also examined only a small number of the many possible predictors of adherence and outcome. It was beyond the scope of this study to examine all of the predictors of adherence and outcome that have been identified in the literature. However, there would be merit in examining additional clinical factors in future studies of online self-help programs. Clinical predictors of interest include chronicity and diagnostic complexity (co-morbidity), as these factors have been shown to influence adherence and outcome (Hamilton & Dobson, 2002; Melville et al., 2010). Reliable and valid methods (such as clinical interviews) should be used to establish the diagnostic profile of participants, as well as the number of previous episodes of illness and age of onset. These measures were not included in the ECCO trial because it was unclear whether potential participants (who normally retain an anonymous and short but frequent relationship with the Lifeline service) would be willing to undergo extensive psychological testing at baseline.
This preliminary investigation did not examine possible mediating relationships between predictors and outcome variables. Analyses examining the potential mediating roles of adherence and motivation on outcome were intended, but were unable to be conducted due the failure to find an association between these variables. Also, studies with more frequent observations (rather than pre-post designs) are more ideal for examining mediation or causal chains, and future studies of this type need not be controlled trials.

6.6.5 Implications and future directions

The finding that higher motivation predicted higher rates of program completion has implications for the development of interventions to promote adherence to online treatments. The use of the Internet in mental health care is still relatively new, and users may not know what to expect from an Internet-based treatment prior to commencement. An educational intervention administered prior to treatment that aims to socialise and prepare individuals for the intervention may be useful for minimising dropout.

The finding that educational level was related to adherence raises issues concerning the use of online interventions by people with lower levels of education. However, it is as yet unclear which specific factors associated with educational level influenced adherence in the current study. Further investigation of related factors such as reading skill and attitudes toward reading may elucidate this. Those with lower levels of education may have been more likely to drop out due to frustration with reading large amounts of text.

This study also highlights issues for future research. The study of treatment adherence and outcome is rarely guided by a cohesive theoretical model. Online
intervention research has until recently lacked a theory which might explain the factors that influence website usage, behaviour change and symptom improvement. Since the ECCO trial was conducted, Ritterband and colleagues have proposed a behaviour change model for Internet interventions that aims to explain how user and environmental factors might interact with website characteristics, which in turn might lead to behaviour change and symptom improvement (Ritterband, Thorndike, Cox, Kovatchev, & Gonder-Frederick, 2009). Using this model as a possible guide, future investigations of adherence to online programs might look beyond client and clinical characteristics to other factors that may interact with these variables, including environmental (family/community/media), support (type/intensity) and website (content/appearance/delivery) factors. The lack of an overarching theoretical model to guide a concurrent examination of predictors of adherence and outcome may partially account for some of the inconsistencies in the literature. Studies that separately examine the predictors of adherence and outcome in different samples and settings with different programs can create a disjointed picture of how these variables operate and interrelate. For example, there is evidence to suggest that lower symptom severity is associated with better adherence to treatment. However, higher baseline severity has been associated with better outcome. Thus, the predicted relationships between symptom severity, adherence and outcome in the current trial would appear to be inconsistent with the hypothesis that adherence predicts better outcome. Irreconcilable findings such as this may be attributable to the considerable heterogeneity between studies and the overall lack of studies in this area. However, greater clarity could be achieved if the predictors of both adherence and outcome are examined together in future studies.
Summary

The current study is a preliminary investigation of the factors that predict adherence to and outcomes for an online depression intervention. It is one of only a small number of studies that have examined this question. Significantly, the study found no relationship between adherence and outcome. There was also little evidence of an association between demographic characteristics and treatment adherence and outcome, although higher education did predict greater adherence, as did higher pre-intervention motivation. However, only higher baseline depression symptom severity was associated with better outcome at post-intervention, 6 month follow-up and 12 month follow-up. The results of the study are of considerable practical interest but should be interpreted with caution pending replication.
CHAPTER 7 – FUTURE DIRECTIONS AND CONCLUSIONS

7.1 Future research directions

As the first of its kind, the ECCO trial aimed to determine the feasibility and efficacy of an Internet-based intervention in a telephone counselling setting. In spite of a number of barriers, the study demonstrated that web-based interventions can be successfully implemented and evaluated in a setting in which the conduct of rigorous research trials is not commonplace.

The implications of these findings for future research and service delivery are clear. First, there is a need to evaluate the potential of such Internet interventions in telecounselling settings more generally by establishing if the findings of the trial can be replicated in other national helplines. Such replications should be strengthened by incorporating formal clinical assessments at screening, either via the telephone or the Internet, to establish the absence or presence of a clinical diagnosis of depression. Replication of the trial is also needed to confirm the reliability of the outcomes of the current trial, particularly in view of the lower than anticipated achieved sample size, and the presence of influential outliers in the data.

In addition, the role of telephone tracking requires further exploration. Although this research demonstrated that Internet interventions can be effective without therapist support, there is a need to further evaluate the effect of the type and intensity of guidance for different forms of support. The results of the current study provided no support for the use of telephone tracking. Nevertheless, there still remains convincing evidence for the efficacy of adding minimal guidance to Internet-based treatments (Andrews et al., 2010; Spek et al., 2007a), and the current study by
itself is insufficient to suggest that it should be stopped. However, the results of the current study do suggest that the use of minimal contact does not always produce stronger effects, and further research efforts should focus on the population, setting or intervention characteristics that moderate the effects of ongoing support. In a telephone counselling sample, the potential role of e-mail contact should be investigated, as this method may be perceived as less confronting than direct telephone monitoring. Qualitative data on patient experiences with Internet-based CBT suggests that other, non face-to-face types of support (such as e-mail) may be sufficient to improve adherence (Gerhards et al., 2011).

There is also a need to find effective methods for engaging those who drop out before commencing or during an intervention. This is challenging given that adherence research lacks an adequate theoretical framework to predict and explain non-adherence. Nonetheless, researchers have attempted to classify interventions to increase adherence as technical (dosage and packaging strategies to simplify the intervention), behavioural (memory aids, incentives), educational (increasing knowledge) or a combination of these (van Dulmen, Sluijs, van Dijk, de Ridder, Heerdink, & Bensing, 2007). Although evidence has been found to support these approaches with regard to physical health disorders, it remains unclear which approaches are effective for Internet-based treatments for mental disorders. Ritterband and colleagues suggest a scientific framework to conceptualise the interacting factors that may influence website usage (Ritterband et al., 2009). The Internet Intervention Model describes how characteristics of Internet intervention users might interact with environmental, support and website characteristics to affect website usage and adherence, which in turn, may lead to behaviour and symptom change. This or other models may inform the future development of appropriate and
effective methods to address attrition in Internet-based treatments in unique user samples and treatment delivery settings.

The current research has implications for program development. The intervention was found to be effective for depression but not anxiety. There is enormous potential for web interventions to effectively and concurrently treat disorders with high rates of co-morbidity. Researchers have demonstrated success in developing transdiagnostic web programs for treating different anxiety disorders (Titov et al., 2010b). Another approach may be to enable individuals with multiple diagnoses to access different, diagnosis-specific content within a single program. The e-couch program (http://ecouch.anu.edu.au/) contains therapeutic content modules that specifically target several psychological disorders. This approach, if shown to be effective, will enable efficient and more targeted courses of treatment that can be tailored to clients depending on their unique diagnostic profile.

Cost-effectiveness evaluations are lacking in Internet intervention research. Only three papers have been published examining this issue, one relating to a computerised CBT (CCBT) program, and the other relating to computerised CBT delivered via the Internet. Non-online computerised CBT was shown to be cost-effective relative to usual primary care, even though the mean service cost of CCBT was 10% higher than usual care (McCrone, Knapp, Proudfoot, Ryden, Cavanagh, Shapiro, Ilson, Gray, Goldberg, Mann, Marks, Everitt, & Tylee, 2004). Cost-utility and cost-effectiveness analyses revealed that online CBT was preferential to both treatment as usual and online CBT and treatment as usual combined (Gerhards et al., 2010). Thirdly, Griffiths and Christensen reported an analysis of the direct costs of MoodGYM compared with face-to-face CBT and GP-administered antidepressant medication. This analysis showed that costs per client were lower for those treated with MoodGYM, once 753 individuals were treated with medication or 359 people
were provided with a course of CBT (Griffiths & Christensen, 2007). It has been suggested that the cost-effectiveness of Internet treatments is reduced with the addition of clinical support (Palmqvist et al., 2007). However, this has yet to be evaluated systematically. Future research in this area could focus on the cost-effectiveness of the current model that utilises the volunteer workforce, relative to other clinician and technician assisted models of Internet intervention delivery.

7.2 Conclusion

The current research demonstrates that it is both feasible and effective to implement an Internet-based intervention for depression within a national telephone counselling service. The intervention produced large effects for depression, both with and without weekly telephone monitoring provided by a telephone counsellor. Unexpectedly, telephone tracking did not improve adherence to the intervention, and instead, was associated with increased dropout from the trial. The intervention was associated with reductions in levels of clinical depression caseness, and was viewed by participants as a credible and useful treatment resource. Overall, the intervention was not effective in the reduction of anxiety symptoms, although between group contrasts indicated promising findings in favour of the intervention.

The intervention also produced significant effects for a range of secondary outcomes including decreased levels of hazardous alcohol use, increased quality of life, and increased knowledge of psychological and alternative treatments for depression. The intervention was also effective in encouraging participants to seek help from evidence-based sources, decreasing the disablement associated with depression and increasing favourable attitudes towards Internet-based treatments. In a broader sense, the initial scoping survey and the trial provided useful information
about users of telephone counselling services, including their attitudes towards anonymity and their need and preferences for depression treatment.

There is clear potential for Internet-based treatments to be disseminated through telephone counselling settings. The positive results from the trial indicate that BluePages and MoodGYM could be implemented within Lifeline's current counselling services with minimal additional resource requirements or disruption to their current service. In a research context, the results of the trial suggest that further attention should be focused on the role of technician and clinician guidance in Internet treatments, and to determine appropriate methods for minimising dropout from trials. Depression is associated with significant personal and economic burden, and the positive results of the trial suggest that the delivery of Internet-based treatments through telephone helplines may prove to be a valuable new model for the delivery of psychological services.
References


Andersson, G., Strömgren, T., Ström, L., & Lyttkens, L. (2002). Randomized controlled trial of Internet-based Cognitive Behavior Therapy for distress associated with tinnitus Psychosomatic Medicine, 64, 810-816.


Health and Wellbeing Survey. (2000). *Psychological distress in the Western Australian population*: Health Department of Western Australia.


Kiropoulos, L., Griffiths, K., & Blashki, G. (2011). Effects of a multilingual information website intervention on the levels of depression literacy and depression-related stigma in Greek-born and Italian-born immigrants living in Australia: a randomized controlled trial. *Journal of Medical Internet Research, 13*(2), e34.


Wells, K., Hays, R., Burnam, M., Rogers, W., Greenfield, S., & Ware, J. (1989a). Detection of depressive disorder for patients receiving prepaid or fee-for-service care. Results from the Medical Outcomes Study. *Journal of the American Medical Association, 262*(23), 3298-3302.


LIST OF APPENDICES

Appendix 1: Scoping survey manual for supervisors
Appendix 2: Scoping survey manual for telephone counsellors
Appendix 3: Scoping survey items
Appendix 4: Telephone counsellor recruitment training manual
Appendix 5: Recruitment script
Appendix 6: Screening script and survey
Appendix 7: Resources provided to ineligible participants due to K-10 score
Appendix 8: Resources provided to ineligible participants due to diagnosis
Appendix 9: Information sheet for participants
Appendix 10: Consent form for participants
Appendix 11: Pre-intervention questionnaire (all participants)
Appendix 12: Motivation to participate in a depression intervention survey
(Internet only and Internet plus tracking conditions)
Appendix 13: Post-intervention survey (Internet only condition)
Appendix 14: Post-intervention survey (Internet plus tracking condition)
Appendix 15: Post-intervention survey (Tracking only condition)
Appendix 16: Post-intervention survey (Control condition)
Appendix 17: Reasons for non-adherence to the intervention survey
(Participants who completed less than 3 MoodGYM modules)
Appendix 18: Six month follow-up questionnaire (Internet only and Internet plus tracking conditions)
Appendix 19: Six month follow-up questionnaire (Tracking only and Control conditions)
Appendix 20: Twelve month follow-up questionnaire (Internet only and Internet plus tracking conditions)

Appendix 21: Twelve month follow-up questionnaire (Tracking only condition)

Appendix 22: Telephone counsellor feedback survey

Appendix 23: Intervention manual (Internet only and Internet plus tracking conditions)

Appendix 24: Telephone script (Internet only condition)

Appendix 25: Telephone script (Internet plus tracking condition)

Appendix 26: Telephone script (Tracking only condition)

Appendix 27: Telephone script (Control condition)
Appendix 1

Scoping survey manual for supervisors
Dear supervisor!

We are very excited to be working with you to find out how to provide the best possible services to Lifeline’s callers. We appreciate your support, as without it, this project would not be possible.

What is this survey and why do it?

This survey is the first step in a 3-year collaborative research project between Lifeline and the Centre for Mental Health Research at the Australian National University. Over the next 3 years, Lifeline will trial a new service that is designed to help callers who experience symptoms of depression and anxiety. This service will involve offering Lifeline callers web-based and book-based resources to help them with their problems, in conjunction with the telephone counselling service that Lifeline currently provides.

In this first step, telephone counsellors will be administering a brief survey to callers at the conclusion of a counselling call. This survey is designed to capture important information about how many Lifeline callers experience symptoms of depression and anxiety, and would be willing to participate in and evaluate a service designed to assist with these problems. The data from this survey is very important as it will not only enhance what Lifeline currently knows about callers, but it will help us to design and implement the project as best we can.

During the survey period, it is important that telephone counsellors ask each caller (there are some exceptions) at the conclusion of the counselling call, whether they would mind participating in the survey. Regardless of whether the TC thinks the caller will say yes or not, it is important that they provide each caller with the opportunity to participate. This is because one of the survey’s aims is to find out how many callers are willing to directly answer questions about themselves.

This manual is a guide to help you familiarise yourself with the survey step-by-step in order to assist TCs to work through the survey with callers.

Please do not hesitate to speak to Julie or Nicole Burgess if you have any questions or concerns about the survey.

We look forward to sharing and discussing the results of the survey with you.

Thank you once again, this would not be possible without you!
The survey at a glance:

What kind of survey is it?

The survey is for callers to complete at the conclusion of a counselling call. TCs access the survey via a website, and ask the questions over the phone to the caller. TCs record the caller’s answers on the computer and then submit the survey electronically.

How many questions does the survey have?

The survey contains 64 questions that are divided into 6 sections. The questions are short and mostly require yes and no answers.

What types of questions does the survey ask?

The survey asks a range of questions about why callers use Lifeline, issues they experience, their general mental health, their willingness to trial a new service and demographic information. For a list of the measures used in the survey, see Appendix 1.

How long does the survey take?

It should take about 10 minutes for the caller to complete the survey.

Some important points about the survey:

Some text in the survey is in bold and other text is in italics.

The bolded parts of the survey (except section headings i.e. “Section 2” and question numbers i.e. “Q2”) are for TCs to read to the caller.

The italicised parts of the survey are instructions for TCs to follow as they work through the survey.
How to do the survey – step by step

How to access the survey:

1. Open the Internet program on your computer, for example, Internet Explorer.

2. Type the following website into the address bar and press enter: https://apollo.anu.edu.au/default.asp?pid=1524. A website with the ANU logo and title ‘Centre for Mental Health Research’ will appear:

![Website screenshot]

This Survey closes Dec 31 2006 12:00PM.

[Login]

3. Click on the button that says ‘login’. Enter the following details into the login box that appears and click ‘login’:

User ID: Lifeline

Password: survey
Section 1: Participation in the survey

Just enter any word (not your name) that you will remember, and type it in here every time you complete a survey.

Q1. Could you please enter the unique username you have chosen:

Basketball

Q2. Is this a practice run?

☑ Yes  ☐ No

Q3. Do you feel it is appropriate to ask this caller to participate in the survey?

☑ Yes  ☐ No

Q4. If not (clicked 'no' to Q3), what is the reason it would not be appropriate?

Short referral call

If you have clicked 'no' to Q3, do not proceed. Go to the end of the survey (tab 6) and click on 'submit'.

START SURVEY

Ask at the conclusion of the call - exclude calls where you feel the survey is inappropriate. E.g. suicide or short referral calls.

Before we finish talking, would you mind answering some brief questions to help Lifeline improve its services? It should take about 10 minutes.

Before answering, I'd like to tell you why we're asking these questions. Lifeline has little survey data on the reasons people call, and what callers want from the service. So this is designed to get some more information to improve our service. The answers to your questions are recorded on a computer at the Australian National University, and they are not linked to your name, or my name, so nobody can identify that you provided the answers that you did. They are confidential. I'd also like to say that you don't have to answer these questions, it's voluntary. If you say no, nobody here will know so it won't affect the help you get from Lifeline now or in the future. If you say yes, you can stop answering the questions at any time.

Q5. Would you be willing to answer some brief questions?

☑ Yes  ☐ No

If caller says no

That's fine. Thank you for calling Lifeline. Remember, you can call again if you'd like to talk more about anything.

Go to the end of the survey (tab 6) and click on 'submit'.

If the caller says "no", follow the instructions and submit the survey.
Section 2: Excluding minors

These questions are designed to find out the level of depression among people that call Lifeline, and whether people would like a service that helps them cope with depression.

Due to ethical limitations, I can only ask these questions to people who are aged 18 or above.

Q6. Can I just ask whether you are 18 or older?

☐ 18 or older  ☐ 17 or younger  ☐ Don’t know  ☐ Refused

If caller is 17 or younger, refuses or doesn’t know
Thank you for your offer to participate, but you don’t need to answer any more questions. Remember that you can call Lifeline again to talk more about anything.
Go to the end of the survey (tab 6) and click on 'submit'.

If the caller is not over 18:
follow the instructions and submit the survey.
Section 3: Caller's experience with Lifeline

Section 3. Caller's EXPERIENCES WITH LIFELINE

Firstly, I have a few questions about your experiences with Lifeline.

Q7. How many times, including today, have you used Lifeline’s call service in the past month?
   - 1 time (just today)
   - 2 times
   - About 3-10 times
   - About 10-19 times
   - About 20 or more times
   - Don’t know
   - Refused

How much are each of the following problems currently causing difficulties in your life? Just answer either: not at all, somewhat, or quite a bit.

Q8. Money problems
   - Not at all
   - Somewhat
   - Quite a bit
   - Don’t know
   - Refused

Q9. Housing problems
   - Not at all
   - Somewhat
   - Quite a bit
   - Don’t know
   - Refused

Q10. Problems in relationships
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q11. Taking drugs
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q12. Alcohol
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q13. Family problems
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q14. Loneliness
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q15. Physical illness
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q16. Feeling anxious
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q17. Feeling depressed
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q18. Was there anything else specific that is causing you difficulty?

   Emotional abuse

« Previous  Next »

Just read the text in bold to the caller and record their responses.

Question 18 allows the caller to list any other difficulties in their lives. Just type their response in the box.

Click "next" to continue
Section 4: Caller's attitudes and willingness to participate in the trial

We are designing and evaluating a new service that involves providing information and support over the phone, for an eight week period. We would like to know whether this service would be appropriate for people like you.

Q19. Do you think you would like to evaluate and participate in this kind of service if it was offered to you?
- Yes
- No
- Don't know
- Refused

If the caller says "no", click 'next' and continue with Section 5.

So that the service could keep in touch with you, would you be willing to provide the following information, with the assurance it would be kept strictly confidential?

Q20. Your full name
- Yes
- No
- Don't know
- Refused

Q21. Your telephone number
- Yes
- No
- Don't know
- Refused
- Don't have one

Q22. Your postal address
- Yes
- No
- Don't know
- Refused
- Don't have one

Q23. Your email address
- Yes
- No
- Don't know
- Refused
- Don't have one

Q24. If you were part of the program, would you be willing to have Lifeline call you at a pre-arranged time for eight weeks?
- Yes
- No
- Don't know
- Refused

Q25. If you were part of the program, what would be the best time for you to speak to a counsellor?
- Morning
- Afternoon
- Evening
- Anytime
- Don't know
- Refused

Q26. Do you have access to the Internet at least once a week?
- Yes
- No
- Don't know
- Refused

Q27. Do you know how to use the Internet to find information?
- Yes
- No
- Don't know
- Refused

Click "next" to continue
Section 5: Caller’s mental health

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Q28.</td>
<td>Have you been lacking in energy?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q29.</td>
<td>Have you lost interest in things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q30.</td>
<td>Have you lost confidence in yourself?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q31.</td>
<td>Have you felt hopeless?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q32.</td>
<td>Have you had difficulty concentrating?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q33.</td>
<td>Have you lost weight (due to poor appetite)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q34.</td>
<td>Have you been waking early?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q35.</td>
<td>Have you felt slowed up?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q36.</td>
<td>Have you tended to feel worse in the morning?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q37.</td>
<td>Are you currently taking any anti-depressant medication (prescription)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q38.</td>
<td>In the last 4 weeks, have you had an anxiety attack - suddenly feeling fear or panic?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q39.</td>
<td>Do these attacks bother you a lot, or are you worried about having another attack?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q40.</td>
<td>Do you have any of the following fears so that you avoid them: eating or drinking with other people, being watched or stared at, talking to people in authority, being criticised, or speaking to an audience?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
<tr>
<td>Q41.</td>
<td>Are you frightened by spiders, snakes or other animals so much that it interferes with your coping capacity?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t know</td>
<td>Refused</td>
<td></td>
</tr>
</tbody>
</table>
Now I have another series of questions about how you have been feeling recently. Just answer yes or no.

Q42. Have you ever felt keyed up or on edge
   - Yes
   - No
   - Don't know
   - Refused

Q43. Have you been worrying a lot?
   - Yes
   - No
   - Don't know
   - Refused

Q44. Have you been irritable?
   - Yes
   - No
   - Don't know
   - Refused

Q45. Have you had difficulty relaxing?
   - Yes
   - No
   - Don't know
   - Refused

Q46. Have you been sleeping poorly?
   - Yes
   - No
   - Don't know
   - Refused

Q47. Have you had headaches or neckaches?
   - Yes
   - No
   - Don't know
   - Refused

Q48. Have you had any of the following: trembling, tingling, dizzy spells, sweating, diarrhoea, or needing to pass water more often than usual?
   - Yes
   - No
   - Don't know
   - Refused

Q49. Have you been worrying about your health?
   - Yes
   - No
   - Don't know
   - Refused

Q50. Have you had difficulty falling asleep?
   - Yes
   - No
   - Don't know
   - Refused

Have you seen any of the following mental health professionals in the past month?

Q51. A counsellor (other than a Lifeline telephone counsellor)
   - Yes
   - No
   - Don't know
   - Refused

Q52. A case-worker
   - Yes
   - No
   - Don't know
   - Refused

Q53. A psychologist
   - Yes
   - No
   - Don't know
   - Refused

Q54. A psychiatrist
   - Yes
   - No
   - Don't know
   - Refused

Q55. Have you seen another kind of mental health professional?

Q56. How often do you have a drink containing alcohol?
   (Interviewer enter the correct category based on caller's answer)
   - Never
   - Monthly or less
   - Two to four times a month
   - Two or three times a week
   - Four times a week
   - Don't know
   - Refused

Q57. How many drinks containing alcohol do you have on a typical day, when you are drinking?
   (Interviewer enter the correct category based on caller's answer)
   - 0 or 2
   - 3 or 4
   - 5 or 6
   - 7 to 10
   - 10 or more
   - Don't know
   - Refused

For Questions 56 and 57, you do not need to read each of the possible answers to the caller. Just enter the response into the correct category based on the caller's answer.

For example:
TC: "How often do you have a drink containing alcohol?"
Caller: "Oh, a couple of times a month"
For this caller's response, click "Two to four times a month"
Section 6: Caller demographics

Q38. What is your current age?

Q39. Are you male or female?
- Female  ☐ Male  ☐ Don’t know  ☐ Refused

Q40. What is your current marital status?
- Never married  ☐ De facto  ☐ Married  ☐ Separated  ☐ Divorced  ☐ Widowed  ☐ Don’t know  ☐ Refused

Q41. What is the postcode where you currently live?

Q42. What is the highest level of primary or secondary schooling you have completed?
- Some of primary school  ☐ All of primary school  ☐ Some of secondary school  ☐ 3/4 years of secondary school (intermediate)  ☐ 5/6 years of secondary school (high school certificate)  ☐ Don’t know  ☐ Refused

Q43. What is the highest level of post-secondary or tertiary education you have completed?
- None  ☐ Trade certificate/apprenticeship  ☐ Technician’s certificate/advanced certificate  ☐ Other certificate than above  ☐ Associate diploma  ☐ Undergraduate diploma  ☐ Bachelor’s degrees  ☐ Post graduate diploma/certificate  ☐ Higher degree  ☐ Other

Q44. Do you speak a language other than English regularly at home?
- Yes  ☐ No  ☐ Don’t know  ☐ Refused

That’s all the questions I have. Thank you for taking the time to participate. If you have any concerns about the questions you have answered, please call Helen Christensen at the Centre for Mental Health Research at The Australian National University on 02 6125 2741. For queries about ethics, please call the Ethics Officer for Human Research at The Australian National University on 6125 7945.

And remember, you can always call Lifeline again if you’d like to talk further about anything else.

(Naturally conclude the call as you would any other Lifeline call)
**Tips for administering the survey:**

1. Ideally, you should move through the survey quite quickly – it is best if the caller only spends a few seconds answering each question.

2. Don’t use the ‘back’ or ‘forward’ arrows up the top of Internet Explorer to move through the survey. Please use the ‘next’ and ‘previous’ tabs at the bottom of the survey:

   ![Previous Next](image)

3. Don’t close the screen (click on the cross at the top right-hand corner of the screen) to end a survey – make sure you go to the end and click on ‘submit’. Submit the survey even if the caller only answers a few questions and then decides to stop.

4. Don’t worry if you realise you’ve made a mistake entering information, after you have ‘submitted’ the survey. Don’t click back through to try and correct the mistake.

5. If you forget the word you have chosen as your username don’t worry too much. Just select a new word and enter this word at Q1. for the remaining surveys you do.

**Why is this survey so important and how will the data be used?**

This survey is important because it is a crucial first step in a research project designed to investigate new and innovative ways to help TCs deliver help to Lifeline callers. The underlying purpose of the research project is in sync with Lifeline’s goal to support and connect people with appropriate care.

The research is also designed to be responsive to the current and future needs of Lifeline callers. Before we can proceed with the project, we need to first ascertain from callers themselves exactly what their wants and needs are. The best way to do this is to ask them questions directly. By asking these questions, the data collected from the survey will tell us how open callers are to being involved in research like this and if they would find it helpful or useful. Knowing this at the beginning, we can then use this information to make decisions about how best to run the project.

All data collected will be valuable to Lifeline, as it will enhance the knowledge that Lifeline already has about callers. Specific questions in the survey (such as caller mental health, and their willingness to participate in a new service) will give us clear idea of whether the research is feasible, likely to work with callers, and likely to be of use to them. The more we know about callers; the greater chance we have of helping them.
Frequently asked questions:

The following section contains questions and issues that TCs may encounter as they work through the survey.

After I submit the survey, how do I get back to the beginning of the survey again?

After you submit a survey, the following screen will appear. Click on the link “Click here to start a new survey” and it will take you back to the login page.

Why do we ask callers about their mental health?

This is important information to know because the general mental health of Lifeline callers has implications for the service that we will trial to help people with depression. We need to know how many people may find this service useful.
What do I do if the caller has already been asked to complete the survey? (Repeat callers)

If the caller says they have already completed the survey, or declined participation during a previous counselling call, just thank them and conclude the call as usual. We do not need regular callers to answer the survey more than once. Click "no" for Q3, and record the reason in the box in Q4 and then submit the survey.

Q3. Do you feel it is appropriate to ask this caller to participate in the survey?
   - Yes
   - No

Q4. If not (clicked ‘no’ to Q3), what is the reason it would not be appropriate?
   - Repeat caller – already completed

What if a caller refuses to answer a question or doesn’t know the answer?

Most questions have the options “Refused” and “Don’t know” in the list of possible answers.

If you ask a caller a question and they say, “I don’t know”... just click on “Don’t know” and move on to the next question.

If you ask a caller a question and they refuse to answer it... just click on refused and move on to the next question.

If the caller starts to become uncomfortable and refuses to answer a number of questions in a row... offer to skip the rest of that section and move on to the next set of questions. You can also remind the caller that the survey is voluntary and that they can stop at any time. If you have time, click "refused" for the questions in the section that you skipped. Remember to submit the survey even if the caller decides to stop halfway through.

Why is it important to practice the survey?

It may seem a bit self-explanatory, but you may find it easier to use the survey on the phones if you are familiar with it. When you practice, try reading the questions out loud or practicing with another TC acting as a caller. This might help the survey feel more natural to you and to the caller.
How do I know who is appropriate to ask to do the survey?

It is not appropriate to ask a caller to complete the survey when the focus of the call has been suicide, or the caller is ringing quickly to gain referral information. Otherwise, you should ask all other callers if they would like to participate. Use your judgement as a TC to help you decide as well, as you still may encounter calls where it is inappropriate and the focus has not been around suicide or referral.

Bear in mind that our purpose is to gain as accurate a picture of all types of Lifeline callers as possible, and part of this is making sure that all appropriate people are asked. Remember, the survey is voluntary and it’s ok if the caller refuses to participate. It’s important to give callers the opportunity in the first place.

Why do I have to submit every survey, even if the survey is incomplete? (i.e. it wasn’t appropriate to ask or the caller said no)

It is important for us to know how many people do not want to do the survey or how many calls it may be unsuitable for, as this information will help us gain a better idea of what to expect in the next stages of the research. From this point of view, an incomplete survey is just as valuable as a completed one; so all surveys should be submitted and recorded, even if the caller says no or stops halfway through.

What if the caller asks for more information about the service?

At the beginning of Section 4, you will ask the caller if they would like to participate in and evaluate a new service. If the caller asks you for more information about this service, you can tell them that it will involve regular contact with Lifeline counsellors, who will provide callers with resources, information and practical advice to help them with their problems. As part of the service, counsellors will support callers to use Internet-based and book-based resources to help them with depression and anxiety.

I feel unsure about asking callers direct questions about themselves.

Some TCs have felt uncomfortable about asking questions of callers because they have thought that this may make the caller feel worse. However, research suggests that very few people find these kinds of questions distressing. Nevertheless, if you feel that the survey is having a negative impact on a caller, you are encouraged to remind them that participation is voluntary and that they can stop answering at any time. It is perfectly ok for a caller to refuse to participate in the survey.
Appendix 1: Measures used in the scoping survey:

This section is to provide some background on how the questions in the scoping survey were chosen and/or developed.

Caller's experiences with Lifeline

This section of the questionnaire asks respondents about the number of times they have called in the past month and the current problems they face. These questions have been developed by the researchers from ANU, in conjunction with staff from Lifeline Australia and Lifeline telephone counsellors.

Willingness to participate in the proposed research

This section of the questionnaire begins with a short description of the depression intervention that Lifeline will trial. This is followed by questions asking the caller if they would be willing to participate in and evaluate this kind of service and if they would be willing to provide contact details. These questions have been developed by the researchers from ANU, in conjunction with staff from Lifeline Australia and Lifeline telephone counsellors.

Mental health measures

Depression - Depression is measured using the Goldberg Depression Measure (Goldberg DP, Bridges K, Duncan-Jones P, et al. 1988). This screening test contains nine statements to which the caller answers either 'yes' or 'no'. A total scale score, ranging from 0 to 9, is obtained by summing the scores for each question. This yields a scale score ranging from 0 to 9, where a higher score represents greater depression.

Panic Attacks - Two questions are used to screen whether the caller has had a recent panic attack. The first, 'In the last 4 weeks, have you had an anxiety attack – suddenly feeling fear or panic?', is from the Primary Care Evaluation for Mental disorders or Prime-MD (Spitzer, Williams, Kroenke, et al. 1994). The second, 'Do these attacks bother you a lot or are you worried about having another attack?', was developed by the researchers to gain information about how callers respond to panic attacks.
**Social Phobia** - The single social phobia question from the Prime-MD is used to screen for whether the caller has social phobia: ‘Do you have any of the following fears so that you avoid them: eating or drinking with other people, being watched or stared at, talking to people in authority, being criticised, or speaking to an audience?’

**Simple Phobias** - The single simple phobia question from the Prime-MD is used to screen for whether the caller has any simple phobias: ‘Are you frightened by spiders, snakes or other animals so much that it interferes with you coping capacity?’

**Anxiety** – Anxiety is measured using the Goldberg Anxiety Measure (Goldberg DP, Bridges K, Duncan-Jones P, et al. 1988). This screening test contains nine statements to which the caller answers either ‘yes’ or ‘no’. A total scale score, ranging from 0 to 9, is obtained by summing the scores for each question. A higher score indicates greater anxiety.

**Current Professional help** – Two questions are asked to assess how much professional help callers are currently receiving. The first asks whether callers are currently taking anti-depressant medication, and the second asks whether callers have seen a counsellor, a case-worker, a psychologist, a psychiatrist or another mental health professional during the past month.

**Alcohol Use** – Two items from the Alcohol Use Disorder Identification Test (AUDIT) are used to screen for harmful alcohol use (Piccinelli, Tessari, Bortolosami, et al. 1997).

**Demographic measures**

The final section asks for demographic information including age, gender, relationship status, post-code, level of education and language spoken at home. The format used for each of these questions is widely used in epidemiological studies and randomised controlled trials.
Appendix 2

Scoping survey manual for telephone counsellors
Scoping Survey Manual

For Telephone Counsellors

LifeSline
Community Care Queensland

ANU
THE AUSTRALIAN NATIONAL UNIVERSITY
Dear Telephone Counsellors!

There is a new three-year joint project between Lifeline and The Australian National University, Canberra. Lifeline Brisbane along with other LCCQ centres will be taking part in this project to trial a new service that is designed to help callers who experience symptoms of depression and anxiety. This new service will involve offering Lifeline callers web-based and book-based resources to help them with their problems, in conjunction with the telephone counselling service Lifeline currently provides. The trial will involve TCs having ongoing contact with callers to support them to work through the web-based and book-based resources.

The first stage of this project is a scoping survey, which will be running over the next couple of months. The scoping survey is a survey that TC’s will administer to all callers at the end of a counselling call. The survey is the first and crucial step in the project. The main aim of the survey is to inform the development of the new service that will help Lifeline callers with depression. We are unable to develop this new service unless we have accurate information about how many Lifeline callers experience symptoms of depression and anxiety, and how many callers might find this service useful. We would also like to find out how many callers would be willing to participate in and evaluate this service.

During this first stage, it is important that you ask each caller (there will be a list of exceptions) at the conclusion of the counselling call (and after the LIFE questions), whether they would mind participating in the survey. Regardless of whether you think they will say yes or not, it is important that you provide each caller with the opportunity to participate. This is because one of the survey’s aims is to find out how many callers are willing to directly answer questions about themselves.

Some TCs have felt uncomfortable about asking questions of callers because they have thought that this may make the caller feel worse. However, research suggests that very few people find these kinds of questions distressing. Also, other Lifeline projects have found that some callers actually find it empowering and therapeutic to answer questions about themselves and issues they have been experiencing. Nevertheless, if you feel that the survey is having a negative impact on a caller, you are encouraged to remind them that participation is voluntary and that they can stop answering at any stage.

This manual is a guide to help you familiarise yourself with the survey step-by-step and also provide tips and hints for when you work through the survey with callers. Everything you need to know is in this manual. Refer to the manual during training and during the survey collection period.

Please do not hesitate to speak to or visit Nicole Burgess, located here at Lifeline Brisbane (Ph: 3250 1914; nicole.burgess@lccq.org.au) if you have any questions or concerns about the survey or would like to discuss the project further.

We really appreciate your support and enthusiasm, as without your help, this project would not be possible. We look forward to sharing and discussing the results of the survey with you.

Nicole Burgess  
Trial Manager  
Lifeline-ANU Project

Julie Aganoff  
Manager of Counselling  
Lifeline Brisbane

Trevor Carlyon  
Executive Director  
Lifeline Community Care Queensland
The survey at a glance:

What kind of survey is it?
The survey is for callers to complete at the conclusion of a counselling call. TCs access the survey online, and ask the questions over the phone to the caller. TCs record the caller’s answers on the computer and then submit the survey electronically.

How many questions does the survey have?
The survey contains 60 questions that are divided into 6 sections. This may sound like a lot, but all the questions are short and don’t require complex answers, so they should be quite quick to complete.

What types of questions does the survey ask?
The survey asks a range of questions about why callers use Lifeline, issues they experience, their general mental health, their willingness to trial a new service and demographic information. The majority of the questions require yes or no answers.

How long does the survey take?
It should take about 10 minutes for the caller to complete the survey. You ask the caller to participate in the survey at the end of the counselling call, after you have asked the LIFE questions.

Which callers do I ask?
You need to ask every caller to participate in the survey except suicide, short community referral, and non-counselling callers. However, you will still need to record these calls in the survey so that a survey is submitted for every call.
Steps to survey completion: What do I need to do?

Accessing the survey:

1. Double-click on the internet explorer icon on your desktop that says 'SURVEY'

2. A website with the ANU logo and title 'Centre for Mental Health Research' will appear:

![ANU Website Screenshot]

3. Click on the button that says 'Login'. Enter the following details into the login box that appears (these details will stay the same every time you login):

   ![Login Form]

   - User ID: Lifeline
   - Password: * * * * *

   Click on the button that says 'Login'. The survey should now appear on the screen. We recommend that you login to the survey before the call has started and then minimise the screen. When the call is coming to an end, maximise the screen to start the survey.
Some important points about the survey:

When you look at the survey you will see that some text is in **bold** and other text is in *italics*.

The **bolded** parts of the survey (except section headings i.e. “Section 2” and question numbers i.e. “Q2”) are for you to read to the caller.

The *italicised* parts of the survey are instructions for you to follow to help you work through the survey.

For example:

---

**Example of what to say to callers in bold**

---

**Section 2. EXCLUDING MINORS**

Some of these questions are designed to find out the level of depression among people that call Lifeline, and whether people would like a service that helps them cope with depression.

Due to ethical limitations, I can only ask these questions to people who are aged 18 or above.

Q4. Just to check again can I just ask whether you are 18 or older?

- ☐ 18 or older  ☐ 17 or younger  ☐ Don't know  ☐ Refused

If caller is 17 or younger, refuses or doesn't know:

Thank you for your offer to participate, but you don't need to answer any more questions. Remember that you can call Lifeline again to talk more about anything.

Go to the end of the survey (tab 6) and click on ‘submit’.

---

**Example of an instruction in italics**

---
Section 1: Participation in the survey

Section 1. PARTICIPATION IN THE SURVEY

Just for telephone counsellors:

Q1. Could you please enter the unique username you have chosen:

Just enter any word (not your name or LIFE username) that you will remember, and type it in here every time you complete a survey.

Q2. Do you feel it is appropriate to ask this caller to participate in the survey?

- Yes - Start Survey
- No - in the comments box please specify why it was inappropriate (e.g. suicide or short referral call)

Comments

Short referral call

Click "yes" or "no" depending on whether it is appropriate to ask the caller if they would like to participate in the survey. If it is not appropriate, type the reason in the comments box.

If you clicked "no" to Q2, do not proceed. Go to the end of the survey (tab 6) and click on 'submit'.

START SURVEY

Over the next couple of months Lifeline would like to ask some additional questions to find out the reasons people call and what callers want from the Lifeline service. It should only take about 10 minutes.

With your permission, we would like to add your answers to these questions along with the answers you have just provided to a computer at the Australian National University. Nothing that can link you or me with your information will be recorded. Also, you don't have to answer these questions, it's voluntary. And if you begin the questions, you can stop at any time.

Q3. Would you be willing to answer some more questions?

- Yes
- No

If caller says no:
That's fine. Thank you for calling Lifeline. Remember, you can call again if you'd like to talk more about anything.
Go to the end of the survey (tab 6) and click on 'submit'.

If caller says yes:
If it is appropriate to ask the caller, continue with the survey by reading this section to the caller.
If the caller agrees, click "yes" and "next" to continue.

If the caller says "no", follow these instructions and submit the survey.
Section 2: Excluding Minors

Just read this section to the caller. If the caller is aged 18 or over: click “18 or older” and then “next” to continue with the survey.

Remember you have already asked the caller’s age in the LIFE questions. This section is important to obtain consent from people aged 18 or above.

Some of these questions are designed to find out the level of depression among people that call Lifeline, and whether people would like a service that helps them cope with depression.

Due to ethical limitations, I can only ask these questions to people who are aged 18 or above.

Q4. Just to check again can I just ask whether you are 18 or older?

☐ 18 or older ☐ 17 or younger ☐ Don’t know ☐ Refused

If caller is 17 or younger, refuses or doesn’t know:
Thank you for your offer to participate, but you don’t need to answer any more questions. Remember that you can call Lifeline again to talk more about anything.
Go to the end of the survey (tab 6) and click on ‘submit’.

If the caller is not over 18: follow the instructions to submit the survey.

Click “next” to continue.
Section 3: Caller’s experience with Lifeline

Firstly, I have a few questions about your experiences with Lifeline.

Q5. How many times, including today, have you used Lifeline’s call service in the past month?
   - 1 time (just today)
   - 2 times
   - About 3-10 times
   - About 10-19 times
   - About 20 or more times
   - Don’t know
   - Refused

We may have already touched on some of these issues during the call but I would just like to ask how much each of the following problems are currently causing difficulties in your life? Just answer either: not at all, somewhat, or quite a bit.

Q6. Money problems
   - Not at all
   - Somewhat
   - Quite a bit
   - Don’t know
   - Refused

Q7. Housing problems
   - Not at all
   - Somewhat
   - Quite a bit
   - Don’t know
   - Refused

Q8. Problems in relationships
   - Not at all
   - Somewhat
   - Quite a bit
   - Don’t know
   - Refused

Q9. Taking drugs
   - Not at all
   - Somewhat
   - Quite a bit
   - Don’t know
   - Refused

Q10. Alcohol
    - Not at all
    - Somewhat
    - Quite a bit
    - Don’t know
    - Refused

Q11. Family problems
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q12. Loneliness
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q13. Physical illness
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q14. Feeling anxious
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q15. Feeling depressed
     - Not at all
     - Somewhat
     - Quite a bit
     - Don’t know
     - Refused

Q16. Was there anything else specific that is causing you difficulty?
    - Emotional abuse
    -

Click “next” to continue.
Section 4: Caller’s attitudes and willingness to participate in the trial

We are designing and evaluating a new service that will involve providing specialised information and support over the phone, and may involve having ongoing contact with Lifeline. We will be trialling this service with some of our callers early next year and at the moment we just wanted to find out if this service would be appropriate for people like you.

Q17. Do you think you would like to evaluate and participate in this kind of service if it was offered to you?
- Yes
- No
- Don’t know
- Refused

If the caller says "no", click "next" and continue with Section 5.

So that the service could keep in touch with you, would you be willing to provide the following information, with the assurance it would be kept strictly confidential?

Q18. Your full name
- Yes
- No
- Don’t know
- Refused

Q19. Your telephone number
- Yes
- No
- Don’t know
- Refused
- Don’t have one

Q20. Your postal address
- Yes
- No
- Don’t know
- Refused
- Don’t have one

Q21. Your email address
- Yes
- No
- Don’t know
- Refused
- Don’t have one

Q22. If you were part of the program, would you be willing to have Lifeline call you at a pre-arranged time for eight weeks?
- Yes
- No
- Don’t know
- Refused

Q23. If you were part of the program, what would be the best time for you to speak to a counsellor?
- Morning
- Afternoon
- Evening
- Anytime
- Don’t know
- Refused

Q24. Do you have access to the Internet at least once a week?
- Yes
- No
- Don’t know
- Refused

Q25. Do you know how to use the Internet to find information?
- Yes
- No
- Don’t know
- Refused
### Section 5: Caller's Mental Health

Now I have a series of short questions about your health and how you have been feeling recently. Just answer yes or no.

| Q26. Have you been lacking in energy?         | Yes | No | Don't know | Refused |
| Q27. Have you lost interest in things?       | Yes | No | Don't know | Refused |
| Q28. Have you lost confidence in yourself?   | Yes | No | Don't know | Refused |
| Q29. Have you felt hopeless?                 | Yes | No | Don't know | Refused |
| Q30. Have you had difficulty concentrating?  | Yes | No | Don't know | Refused |
| Q31. Have you lost weight (due to poor appetite)? | Yes | No | Don't know | Refused |
| Q32. Have you been waking early?             | Yes | No | Don't know | Refused |
| Q33. Have you felt slowed up?                | Yes | No | Don't know | Refused |
| Q34. Have you tended to feel worse in the morning? | Yes | No | Don't know | Refused |
| Q35. Are you currently taking any anti-depressant medication (prescription)? | Yes | No | Don't know | Refused |
| Q36. In the last 4 weeks, have you had an anxiety attack - suddenly feeling fear or panic? | Yes | No | Don't know | Refused |
| Q37. Do these attacks bother you a lot, or are you worried about having another attack? | Yes | No | Don't know | Refused |
| Q38. Do you have any of the following fears so that you avoid them: eating or drinking with other people, being watched or stared at, talking to people in authority, being criticised, or speaking to an audience? | Yes | No | Don't know | Refused |
| Q39. Are you frightened by spiders, snakes or other animals so much that it interferes with your coping capacity? | Yes | No | Don't know | Refused |

Now I have another series of questions about how you have been feeling recently. Just answer yes or no.

| Q40. Have you ever felt keyed up or on edge? | Yes | No | Don't know | Refused |
| Q41. Have you been worrying a lot?          | Yes | No | Don't know | Refused |
| Q42. Have you been irritable?               | Yes | No | Don't know | Refused |
| Q43. Have you had difficulty relaxing?      | Yes | No | Don't know | Refused |
| Q44. Have you been sleeping poorly?         | Yes | No | Don't know | Refused |
| Q45. Have you had headaches or neckaches?   | Yes | No | Don't know | Refused |
| Q46. Have you had any of the following: trembling, tingling, dizzy spells, sweating, diarrhoea, or needing to pass water more often than usual? | Yes | No | Don't know | Refused |
| Q47. Have you been worrying about your health? | Yes | No | Don't know | Refused |
| Q48. Have you had difficulty falling asleep? | Yes | No | Don't know | Refused |

Have you seen any of the following mental health professionals in the past month?

| Q49. A counsellor (other than a Lifeline telephone counsellor) | Yes | No | Don't know | Refused |
| Q50. A case-worker | Yes | No | Don't know | Refused |
| Q51. A psychologist | Yes | No | Don't know | Refused |
| Q52. A psychiatrist | Yes | No | Don't know | Refused |

This is the last section for callers. Despite the length of this section, the questions are quick and require mostly “yes” or “no” answers.
Q53. Have you seen another kind of mental health professional?

Q54. How often do you have a drink containing alcohol?
(Interviewer enter the correct category based on caller’s answer)

- Never
- Monthly or less
- Two to four times a month
- Two or three times a week
- Four times a week
- Don’t know
- Refused

For Q54 and Q55, you do not need to read each of the possible answers to the caller. Just enter the responses into the correct category based on the caller’s answer.

For example:
TC: “How often do you have a drink containing alcohol?”
Caller: “Oh, a couple of times a month”
For this caller’s response, click “Two to four times a month”

Q55. How many drinks containing alcohol do you have on a typical day, when you are drinking?
(Interviewer enter the correct category based on caller’s answer)

- 1 or 2
- 3 or 4
- 5 or 6
- 7 to 9
- 10 or more
- Don’t know
- Refused

That’s all the questions I have. Thank you for taking the time to participate. If you have any concerns about the questions you have answered, please call Helen Christensen at the Centre for Mental Health Research at The Australian National University on 02 6125 2741. For queries about ethics, please call the Ethics Officer for Human Research at The Australian National University on 6125 7945.

And remember, you can always call Lifeline again if you’d like to talk further about anything else.

(Naturally conclude the call as you would any other Lifeline call)

This is all the questions the caller needs to answer. End the call at the end of this section by reading the bolded text. Once you have hung up, click “next” to fill in some final information and submit the survey.
Section 6: Caller demographics

Once the call has ended, copy the relevant LIFE answers to this section.

Quickly flip between the survey and the LIFE pages to copy the relevant LIFE answers to this section.
If "unable to collect" LIFE information, leave the corresponding survey question/answer blank.

Q60. Does the caller speak a language other than English at home?
   - Yes
   - No
   - Don't know
   - Refused

Once you have entered the relevant LIFE information, click on "Submit" to submit the survey.
The survey is now complete!
Tips for administering the survey:

Move through the survey quite quickly – it is best if the caller only spends a few seconds answering each question.

Don’t use the ‘back’ or ‘forward’ arrows up the top of Internet Explorer to move through the survey. Please use the ‘next’ and ‘previous’ tabs at the bottom of the survey:

Don’t close the screen using the ‘x’ at the top right-hand corner of the screen to end a survey – make sure you go to the end of the survey (tab 6) and click on ‘submit’. Submit a survey for every call, even if it was inappropriate to ask the caller, the caller says no, or the caller only answers a few questions and then decides to stop.

Don’t worry if you realise you’ve made a mistake entering information, after you have ‘submitted’ the survey. Don’t click back through to try and correct the mistake.

If you forget the word you have chosen as your username don’t worry too much. Just select a new word and enter this word at Q1 for the remaining interviews you do.

Before you take a call login to the survey and be on the first page of the survey, then minimise the screen while you are on the call, then when the call is coming to an end maximise the screen to start the survey.
Frequently Asked Questions

After I submit the survey, how do I get back to the beginning to start a new survey?

After you submit a survey, the following screen will appear. Click on the link ‘Click here to start a new survey’ and it will take you back to the login page. You must then login again using Lifeline and survey as the username and password.

How do I know who is appropriate to ask to do the survey?

It is not appropriate to ask a caller to complete the survey when the focus of the call has been suicide, or the caller is ringing quickly to gain community referral information. Otherwise, you should ask all other callers if they would like to participate. Use your judgement as a TC to help you decide as well, as you still may encounter calls where it is inappropriate and the focus has not been around suicide or referral.

Bear in mind that our purpose is to gain as accurate a picture of all types of Lifeline callers as possible, and part of this is making sure that all appropriate people are asked. Remember, that the survey is voluntary and it's ok if the caller refuses to participate. It's important to give callers the opportunity in the first place, regardless of whether you think they will say yes or not.

What do I do if the caller has already been asked to complete the survey? (Repeat callers)

If the caller says they have already completed the survey, or declined participation during a previous counselling call, just thank them and conclude the call as usual. We do not need regular callers to answer the survey more than once. Click “no” for Q2, and record the reason in the comments box and then submit the survey as directed.

Q2. Do you feel it is appropriate to ask this caller to participate in the survey?
   - Yes - Start Survey
   - No - in the comments box please specify why it was inappropriate (eg, suicide or short referral call)

Comments:
Repeat caller – already completed

If you clicked ‘no’ to Q2, do not proceed. Go to the end of the survey (tail 6) and click on ‘submit’.
What if the caller refuses to answer the LIFE questions?

If the caller answers some of the LIFE questions but does not want to answer a particular question or two, still go on to ask them to participate in the survey – it is important that you give them the opportunity to participate in the survey. If the caller refuses to answer any of the LIFE questions at all you do not need to ask the caller to participate in the survey – once again, just note this is the comments box at Q2 and then submit the survey.

Please note: It is important that at the end of the counselling call you ask the callers the LIFE questions and then the survey. If you do not ask the LIFE questions then the introduction to the survey will not make sense. You should all be familiar with asking the LIFE questions – the survey is just an extension of this.

What if a caller refuses to answer a question or doesn’t know the answer?

Most questions have the options “Refused” and “Don’t know” in the list of possible answers. Just click on these when a caller refuses or doesn’t know, as it is still important information for us to know. If at any point the caller is uncomfortable with answering any of the questions, just remind them that the survey is voluntary and that they can stop at any time. You can also offer to skip the section they are having difficulty with. In either of these cases, just record it on the survey before you submit it.

What if the caller hangs up in the middle of the survey/does not want to finish the survey?

That is ok. Conclude the call as you would any other Lifeline call then go to the end of the survey (tab 6) and click on submit.

Why do I have to submit a survey for every call, even if the survey is incomplete? (i.e. it wasn’t appropriate to ask or the caller said no)

It is important for us to know how many people do not want to do the survey or how many calls it may be unsuitable for, as this information has implications for what we can expect in the next stages of the research. From this point of view, an incomplete survey is just as valuable as a completed one; so all surveys should be submitted and recorded!

What if the caller asks for more information about the service?

You can tell them that the service will involve regular contact with Lifeline counsellors, who will provide callers with resources, information and practical advice to help them with their problems. As part of the service, counsellors will support callers to use online and book-based resources to help them with depression and anxiety.
Why do we ask callers about their mental health?

This is important information to know because the general mental health of Lifeline callers has implications for the service that we will trial to help people with depression. We need to know how many people may have depression or depressive symptoms and therefore may find this service useful.

Why is it important to practice the survey?

It may seem a bit self-explanatory, but you may find it easier to use the survey on the phones if you are familiar with it. When you practice, try reading the questions out loud or practicing with another TC acting as a caller. This might help the survey feel more natural to you and to the caller. Also, practice clicking around in the survey and submitting the survey. Surveys submitted during this time will be marked as practice and won’t be included in the actual survey collection, so don’t be afraid to submit surveys while practicing.

I feel unsure about asking callers direct questions about themselves.

Some TCs have felt uncomfortable about asking questions of callers because they have thought that this may make the caller feel worse. However, research suggests that very few people find these questions distressing. Some TCs have also felt uncomfortable about asking questions of callers because it may compromise the counsellor-caller relationship. Use the rapport that you have built with the caller and your skills in communicating and connecting with callers to deliver the survey in an empathic, respectful and non-threatening way. This way you are able to maintain the counselling relationship and the caller will view the survey as an extension of the counselling, rather than a cold data collection process. With surveys that Lifeline has conducted in the past, some callers actually found it quite empowering and therapeutic to answer questions about themselves and their concerns.
## Scoping Survey Plan

<table>
<thead>
<tr>
<th>Time Frame (2 week shift cycle)</th>
<th>Training Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shift 1</strong>&lt;br&gt;(17 July – 30 July)</td>
<td><strong>Phase 1: Familiarisation</strong>&lt;br&gt;- During your spare time on shift familiarise yourself with the survey online – practice logging on, practice asking the questions and clicking on the answers, practice submitting the survey&lt;br&gt;- Practice the LIFE questions and transferring the relevant answers to Section 6 of the survey.&lt;br&gt;- Read the survey manual&lt;br&gt;- Practice with other TC’s if you can</td>
</tr>
<tr>
<td><strong>Shift 2</strong>&lt;br&gt;(31 July – 13 August)</td>
<td><strong>Phase 2: Practice Survey Collection</strong>&lt;br&gt;- Practice the survey with callers&lt;br&gt;(in this phase you do not need to ask every caller to participate but ask a couple of your callers so you can familiarise yourself with doing the survey with ‘live’ callers, without the pressure of it being ‘for real’)&lt;br&gt;- Continue to familiarise yourself with the survey and practice with the other TCs on shift.</td>
</tr>
<tr>
<td><strong>Shifts 3 &amp; 4</strong>&lt;br&gt;(14 August – 10 September)&lt;br&gt;Or until target is reached</td>
<td><strong>Phase 3: Survey Collection</strong>&lt;br&gt;- Survey collection starts now – you must ask every caller to participate in the survey (apart from the exceptions)&lt;br&gt;- Target: <strong>1000</strong> surveys to be submitted</td>
</tr>
</tbody>
</table>

**Note:** 1000 surveys may sound like a lot but the current LIFE statistics indicate that this target is very reachable. The statistics also indicate that most callers will be appropriate to ask and therefore we expect only a small number of surveys submitted to be “inappropriate to ask”.

## Appendix 3

### Scoping survey items

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1: Familiarisation</td>
<td></td>
</tr>
<tr>
<td>12 July - 30 July</td>
<td></td>
</tr>
<tr>
<td>Survey design and piloting - produce draft of questionnaire</td>
<td></td>
</tr>
<tr>
<td>Produce the DESIGN and familiarise the team</td>
<td></td>
</tr>
<tr>
<td>Ensure to Section B of the survey</td>
<td></td>
</tr>
<tr>
<td>Heads the survey manager</td>
<td></td>
</tr>
<tr>
<td>Produce DRAFT of survey</td>
<td></td>
</tr>
</tbody>
</table>

| Phase 2: Design Survey Collection |
| Procedure for each clinic |
| 31 July - 12 August |
| Review/refine the draft of the survey |
| Continue to familiarise yourself with the survey and design |
| Make the other TOs on site |

| Phase 3 & 4 |
| Surveys collection phase now - you must contact each clinic |
| Establishing in the area (each week and the exception) |
| Target: 1000 surveys to be completed |

---

*Note: 1000 surveys was sounded like a good number to start with. The target is very variable. The selection also indicates that most clinics will be subjected to an indeterminable to vary...*
Lifeline caller scoping survey: Brisbane

Telephone counsellor enters username and appropriateness of caller.

Over the next couple of months Lifeline would like to ask some additional questions to find out the reasons people call and what callers want from the Lifeline service. It should only take about 10 minutes.

With your permission, we would like to add your answers to these questions along with the answers you have just provided to a computer at the Australian National University. Nothing that can link you or me with your information will be recorded. Also, you don’t have to answer these questions, it’s voluntary. And if you begin the questions, you can stop at any time.

Q3. Would you be willing to answer some brief questions?

Yes 1
No 2

*If caller says no:*
That's fine. Thank you for calling Lifeline. Remember, you can call again if you'd like to talk more about anything. End survey.

Some of these questions are designed to find out the level of depression among people that call Lifeline, and whether people would like a service that helps them cope with depression.

Q4. Due to ethical limitations, I can only ask these questions to people who are aged 18 or above. Can I just ask whether you are 18 or older?

18 or older 1
17 or younger 2
Don’t know -1
Refused -2

*If caller is 17 or younger, refuses or doesn’t know:*
Thank you for your offer to participate, but you don’t need to answer any more questions. Remember that you can call Lifeline again to talk more about anything. End survey.

CALLER’S EXPERIENCES WITH LIFELINE

Firstly, I have a few questions about your experiences with Lifeline.

Q5. How many times including today, have you used Lifeline’s call service in the past month?

1 time (just today) 1
2 times 2
About 3-10 times 3
About 10-19 times 4
About 20 or more times 5
Refused -1
Don’t know -2

We may have already touched on some of these issues during the call but I would like to ask how much each of the following problems currently causing difficulties in your life. Just answer either: not at all, somewhat, or quite a bit.

Q6. Money problems
Q7. Housing problems
Q8. Problems in relationships

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>Refused</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>-1</td>
<td>-2</td>
</tr>
<tr>
<td>Housing problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>-1</td>
<td>-2</td>
</tr>
<tr>
<td>Problems in relationships</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>-1</td>
<td>-2</td>
</tr>
</tbody>
</table>
Q9. Taking drugs
Q10. Alcohol
Q11. Family problems
Q12. Loneliness
Q13. Physical illness
Q14. Feeling anxious
Q15. Feeling depressed
Q16. Other

CALLER’S WILLINGNESS TO PARTICIPATE IN FURTHER RESEARCH

We are designing and evaluating a new service that will involve providing specialised information and support over the phone, and may involve having ongoing contact with Lifeline. We will be trialling this service with some of our callers early next year and at the moment we just want to find out of this service would be appropriate for people like you.

Q17. Do you think you would participate in this kind of service if it was offered to you?

Yes
No
Refused
Don’t know

So that this kind of program could keep in touch with you, would you be willing to provide the following information, with the assurance it would be kept strictly confidential?

Q18. Your full name
Q19. Your telephone number
Q20. Your postal address
Q21. Your email address

Yes
No
Refused
Don’t know

Q22. As part of this kind of program, would you be willing to call Lifeline at a pre-arranged time for 8 weeks?

Yes
No
Refused
Don’t know

Q23. If you were to take part in this kind of program, what would be the best time for you to speak to a counsellor?

Morning
Afternoon
Evening
Anytime
Refused
Don’t know

Q24. Do you have access to the Internet at least once a week?

Yes
No
Refused
Don’t know

Q25. Do you know how to use the Internet to find information?

Yes

CALLER'S MENTAL HEALTH

Now I have a series of short questions about your health and how you have been feeling recently. Just answer yes or no.

Q26. Have you been lacking in energy?

Yes  1  
No   2 
Refused -1 
Don't know -2 

Q27. Have you lost interest in things?

Yes  1  
No   2 
Refused -1 
Don't know -2 

Q28. Have you lost confidence in yourself?

Yes  1  
No   2 
Refused -1 
Don't know -2 

Q29. Have you felt hopeless?

Yes  1  
No   2 
Refused -1 
Don't know -2 

Q30. Have you had difficulty concentrating?

Yes  1  
No   2 
Refused -1 
Don't know -2 

Q31. Have you lost weight (due to poor appetite)?

Yes  1  
No   2 
Refused -1 
Don't know -2 

Q32. Have you been waking early?

Yes  1  
No   2 
Refused -1 
Don't know -2 

Q33. Have you felt slowed up?

Yes  1  
No   2
<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don't know</td>
<td>-2</td>
</tr>
</tbody>
</table>

**Q34. Have you tended to feel worse in the morning?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don't know</td>
<td>-2</td>
</tr>
</tbody>
</table>

**Q35. Are you currently taking any anti-depressant medication (prescription)?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don't know</td>
<td>-2</td>
</tr>
</tbody>
</table>

**Q36. In the last 4 weeks, have you had an anxiety attack – suddenly feeling fear or panic?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don't know</td>
<td>-2</td>
</tr>
</tbody>
</table>

**Q37. Do these attacks bother you a lot or are you worried about having another attack?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don't know</td>
<td>-2</td>
</tr>
</tbody>
</table>

**Q38. Do you have any of the following fears so that you avoid them: eating or drinking with other people; being watched or stared at; talking to people in authority; being criticised; or speaking to an audience?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don't know</td>
<td>-2</td>
</tr>
</tbody>
</table>

**Q39. Are you frightened by spiders, snakes or other animals so much that it interferes with your coping capacity?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don't know</td>
<td>-2</td>
</tr>
</tbody>
</table>

Now I have another series of questions about how you have been feeling. Again, just answer yes or no.

**Q40. Have you ever felt keyed up or on edge?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don't know</td>
<td>-2</td>
</tr>
</tbody>
</table>

**Q41. Have you been worrying a lot?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>
Refused -1
Don’t know -2

Q42. Have you been irritable?
Yes 1
No 2
Refused -1
Don’t know -2

Q43. Have you difficulty relaxing?
Yes 1
No 2
Refused -1
Don’t know -2

Q44. Have you been sleeping poorly?
Yes 1
No 2
Refused -1
Don’t know -2

Q45. Have you had headaches or neckaches?
Yes 1
No 2
Refused -1
Don’t know -2

Q46. Have you had any of the following: trembling, tingling, dizzy spells, sweating, diarrhoea, or needing to pass water more often than usual?
Yes 1
No 2
Refused -1
Don’t know -2

Q47. Have you been worrying about your health?
Yes 1
No 2
Refused -1
Don’t know -2

Q48. Have you had difficulty falling asleep?
Yes 1
No 2
Refused -1
Don’t know -2

Have you seen any of the following mental health professionals during the past month?

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Refused</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q49. A counsellor</td>
<td>1</td>
<td>2</td>
<td>-1</td>
<td>-2</td>
</tr>
<tr>
<td>Q50. A case-worker</td>
<td>1</td>
<td>2</td>
<td>-1</td>
<td>-2</td>
</tr>
<tr>
<td>Q51. A psychologist</td>
<td>1</td>
<td>2</td>
<td>-1</td>
<td>-2</td>
</tr>
<tr>
<td>Q52. A psychiatrist</td>
<td>1</td>
<td>2</td>
<td>-1</td>
<td>-2</td>
</tr>
<tr>
<td>Q53. Another kind of MH professional?</td>
<td>(please specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q54. How often do you have a drink containing alcohol?

<table>
<thead>
<tr>
<th>Least</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>1</td>
</tr>
<tr>
<td>Monthly or less</td>
<td>2</td>
</tr>
<tr>
<td>Two to four times a month</td>
<td>3</td>
</tr>
<tr>
<td>Two or three times a week</td>
<td>4</td>
</tr>
<tr>
<td>Four times a week</td>
<td>5</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don’t know</td>
<td>-2</td>
</tr>
</tbody>
</table>

Q55. How many drinks containing alcohol do you have on a typical day when you are drinking?

(Interviewer enter the correct category based on caller’s answer)

<table>
<thead>
<tr>
<th>Number of Drinks</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 or 2</td>
<td>1</td>
</tr>
<tr>
<td>3 or 4</td>
<td>2</td>
</tr>
<tr>
<td>5 or 6</td>
<td>3</td>
</tr>
<tr>
<td>7 to 9</td>
<td>4</td>
</tr>
<tr>
<td>10 or more</td>
<td>5</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don’t know</td>
<td>-2</td>
</tr>
</tbody>
</table>

That’s all the questions I have. Thank you for taking the time to participate. If you have any concerns about the questions you have answered, please call either Helen Christensen at the Centre for Mental Health Research at the Australian National University on 02 6125 2741. For queries about ethics, please call the Ethics Officer for Human Research at the Australian National University on 02 6125 7945.

And remember, you can always call Lifeline again if you’d like to talk further about anything else.

NATURALLY CONCLUDE THE CALL AS YOU WOULD ANY OTHER LIFELINE CALL

CALLER’S DEMOGRAPHICS

Q56. What is the age of the caller at last birthday?

_________________ Enter age

Q57. Is the caller male or female?

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>2</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don't know</td>
<td>-2</td>
</tr>
</tbody>
</table>

Q58. From what postcode is the caller?

_________________ Enter postcode

Q59. What is the caller’s current relationship situation?

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never married</td>
<td>1</td>
</tr>
<tr>
<td>De facto/Married</td>
<td>2</td>
</tr>
<tr>
<td>Separated</td>
<td>3</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
</tr>
<tr>
<td>Widowed</td>
<td>5</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don’t know</td>
<td>-2</td>
</tr>
</tbody>
</table>

Q60. Does the caller speak a language other than English at home?
<table>
<thead>
<tr>
<th>Type</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>Refused</td>
<td>-1</td>
</tr>
<tr>
<td>Don't know</td>
<td>-2</td>
</tr>
</tbody>
</table>
Appendix 4

Telephone counsellor recruitment training manual
The ECCO Project

Information for Telephone Counsellors
The ECCO Project

Dear Telephone Counsellors,

Lifeline, in collaboration with The Australian National University has developed a new project called the ‘ECCO Project’ and Lifeline Melbourne along with Lifeline Brisbane, Sunshine Coast and Coral Coast Capricorn are taking part in this project.

The ECCO project is a research project looking at the different ways we can extend the telephone counselling service to provide more resources and support to callers. In particular, we are offering callers access to several different Internet and telephone-based support programs that are aimed at helping to improve their mental health.

We will be comparing the various programs with each other to find out which ones are most helpful.

There are two Internet programs we are using, called BluePages and MoodGYM. BluePages is a comprehensive psychoeducational website and MoodGYM is an interactive self-help based website program designed to help people deal with their emotions and cope with life’s stresses. It also teaches methods to improve self-esteem and better relate to others. It teaches methods based on Cognitive Behaviour Therapy. In addition to these programs, callers will also be offered varying levels of telephone-based support.

Telephone Counsellors and the ECCO Project

In order for callers to be involved in the ECCO project and receive access to this addition support they will first need to be provided with a referral to the project from their telephone counsellor.

We are asking telephone counsellors to provide a referral to all callers, even if mental health is not the presenting issue. There are some exceptions, such as suicide-related calls and community information calls but most other callers would be suitable.

The referral has been scripted and is very brief and non-intrusive, and can be done at the end of a call (or at appropriate time during the call). The referrals will be recorded online.

This manual is a step-by-step guide to the referral process. If you have any questions or would like to discuss the project further please see the telephone counselling staff or you can also contact Nicole (project coordinator) on 07 3250 1914 or email nicole.burgess@lccq.org.au.
SOME FEEDBACK

Some feedback we have received from users of the website programs so far:

"The best part of the program was seeing these methods and strategies laid out in a straightforward, accessible way."

"Very user friendly. Non-threatening. Presented in a language that anyone can understand. Thank you for this refreshingly pleasant and easy to use program."

"I am writing to express my thanks for putting together the MoodGYM program. A very close friend of mine has been suicidal for a long time and she has attempted suicide twice .......... I suggested that she try this program but didn’t really think she would. She tried it and it has really helped her. She loves it and does it everyday. She is now in great shape mentally. MoodGYM is a life saver."

You can check out the websites for yourself!

Note: Please DO NOT give out these details to callers. Callers need to be involved in the ECCO project to receive these programs, along with telephone support.
THE REFERRAL PROCESS

Which callers do I ask?

Everybody (except suicide-related calls and community referral calls). It is important that you extend an invitation to ALL other callers to give them an opportunity to receive some additional help beyond the crisis call. You should also ask your regular callers as well, as this program may be helpful for them too.

When do I ask callers?

You can provide callers with a referral to the project at the end of the counselling call. However, you may also introduce the project anytime throughout the call if you feel an appropriate time arises (such as when you are discussing other referrals).

How long do we refer callers for?

Lifeline Melbourne will be referring callers to ECCO for the next two months.

SOME POINTS TO REMEMBER

Submit a referral sheet for all callers

Please complete an online referral sheet for ALL callers you refer – even if they decline. It is important for the project to know how many callers both accept and decline a referral to find out more information about the project.

Obtaining personal information

As part of the referral process you will be obtaining personal information from callers who accept to find out more information. This information is collected for the purposes of the project only and should be treated with strict confidentiality.

Recurrent Callers

As you are aware some of the callers to the crisis line do call more than once. If you know that you are talking to a recurrent caller who may have already received a referral, instead of introducing the project all over again it is ok to just say ‘have you been asked about the new project’. Please also be aware that some recurrent callers may decline when first asked but then choose to find out more information on another occasion, and that’s ok.

Callers in the project can still access the crisis line

Callers who participate in this project will still be free to call the Lifeline crisis line if they have any personal concerns they wish to discuss. In such cases you should treat this caller as you would any other.
Steps to Caller Referral: What do I need to do?

Accessing the online referral sheet:
1. Double-click on the internet explorer icon on your desktop that says 'ECCO Referral'

   ECCO Referral

2. The referral sheet will appear on the screen. Read the bolded text to callers, fill in the appropriate information and then click on 'submit'.

ECCO Invitation - Melbourne

Caller Invitation

Q1. Enter your TCID

Before we finish talking I just wanted to let you know about a new program that is giving callers some additional help and support if they are feeling down or stressed. We are testing this program out with the Australian National University. If you are interested, the project coordinator can call you back and talk to you about the program. Your involvement in the project is entirely voluntary.

Q2. Would you be interested in finding out more information? Choose only one of the following
   - Yes
   - Maybe
   - No
   - I was invited in a previous call
   - Caller says 'no' or was invited in a previous call: Go to the bottom of the page and click on 'submit'

Some of the programs are internet-based and to be involved you would need to have access to the internet.

Q3. Do you have access or could you get access to the internet? It could be at home, work, library, or internet cafe.
   - Yes
   - No
   - No answer
   - Caller says 'no': Go to the bottom of the page and click on 'submit'. DO NOT collect their contact details

Now, can I take your contact details so that the project coordinator can call you back. These contact details will be kept separate from this call and any calls you may make to Lifeline in the future, and will only be accessed by authorized project staff.

Q4. Is that ok?
   - Yes
   - No
   - No answer
   - Caller says 'no': click on 'submit'

Q5. Name (first name only is ok)

Q6. PHONE NUMBER: (Don't forget area code)

Q7. What is the best time to call you back? You should receive a call in the next few days.

Submit
Questions Callers May Ask You About the Project

The project coordinator will answer any questions the caller has about the project when they receive the call-back. Callers will still be able to decline participation in the project after receiving a call-back from the project coordinator. Below are some questions that callers may ask you at this referral stage:

What type of help and support will the project be offering?
The project is part of a research program that will be offering both Internet and telephone based support programs to help you improve your mental health.

How will you ensure my contact details will be confidential?
Your contact details will be entered into a secure computer program which is password protected and once I type them in only the project staff can access them. Also, Lifeline and the Australian National University follow the Privacy Act 1988.

Will this affect my use of the Lifeline crisis line?
No. This project is an additional service that Lifeline is providing to the crisis line. If you are involved in the project you will still be free to call this crisis line when you feel you need to.

Why are you only offering internet-based programs?
This particular project is looking at new ways of providing callers with services on the Internet. We do understand that not everyone has the Internet and therefore the project will not cater for everyone.

What type of contact will the project involve?
The amount of contact will vary depending on the program you receive. Any contact you do receive will be either by telephone or post.

Note: if a caller is asking you a lot of questions about the project, or you are not sure how to answer a question, encourage the caller to receive a ‘no obligation’ call-back from the project coordinator who can discuss the project in more detail with them.
The ECCO Project

Dear Telephone Counsellors,

Lifeline, in collaboration with The Australian National University has developed a new project called the ‘ECCO Project’ and Lifeline Melbourne along with Lifeline Brisbane, Sunshine Coast and Coral Coast Capricorn are taking part in this project.

The ECCO project is a research project looking at the different ways we can extend the telephone counselling service to provide more resources and support to callers. In particular, we are offering callers access to several different internet and telephone-based support programs that are aimed at helping to improve their mental health. We will be comparing the various programs with each other to find out which ones are most helpful.

There are two Internet programs we are using, called BluePages and MoodGYM. BluePages is a comprehensive psychoeducational website and MoodGYM is an interactive self-help based website program designed to help people deal with their emotions and cope with life’s stresses. It also teaches methods to improve self-esteem and better relate to others. It teaches methods based on Cognitive Behaviour Therapy. In addition to these programs, callers will also be offered varying levels of telephone-based support.

Telephone Counsellors and the ECCO Project

In order for callers to be involved in the ECCO project and receive access to this addition support they will first need to be provided with a referral to the project from their telephone counsellor. We are asking telephone counsellors to provide a referral to all callers, even if mental health is not the presenting issue. There are some exceptions, such as suicide-related calls and community information calls but most other callers would be suitable.

The referral has been scripted and is very brief and non-intrusive, and can be done at the end of a call (or at appropriate time during the call). The referrals will be recorded online.

This manual is a step-by-step guide to the referral process. If you have any questions or would like to discuss the project further please see the telephone counselling staff or you can also contact Nicole (project coordinator) on 07 3250 1914 or email nicole.burgess@lccq.org.au.
SOME FEEDBACK

Some feedback we have received from user's of the website programs so far:

"The best part of the program was seeing these methods and strategies laid out in a straightforward, accessible way."

"Very user friendly. Non-threatening. Presented in a language that anyone can understand. Thank you for this refreshingly pleasant and easy to use program."

"I am writing to express my thanks for putting together the MoodGYM program. A very close friend of mine has been suicidal for a long time and she has attempted suicide twice........ I suggested that she try this program but didn't really think she would. She tried it and it has really helped her. She loves it and does it everyday. She is now in great shape mentally. MoodGYM is a lifesaver."

www.bluepages.anu.edu.au  www.moodgym.anu.edu.au

You can check out the websites for yourself!

Note: Please DO NOT give out these details to callers. Callers need to be involved in the ECCO project to receive these programs, along with telephone support.
THE REFERRAL PROCESS

Which callers do I ask?
**Everybody** (except suicide-related calls and community referral calls). It is important that you extend an invitation to ALL other callers to give them an opportunity to receive some additional help beyond the crisis call. You should also ask your regular callers as well, as this program may be helpful for them too.

When do I ask callers?
You can provide callers with a referral to the project at the end of the counselling call. However, you may also introduce the project anytime throughout the call if you feel an appropriate time arises (such as when you are discussing other referrals).

How long do we refer callers for?
Lifeline Melbourne will be referring callers to ECCO for the next two months.

SOME POINTS TO REMEMBER

Submit a referral sheet for all callers
Please complete an online referral sheet for **ALL** callers you refer – even if they decline. It is important for the project to know how many callers both accept and decline a referral to find out more information about the project.

Obtaining personal information
As part of the referral process you will be obtaining personal information from callers who accept to find out more information. This information is collected for the purposes of the project only and should be treated with strict confidentiality.

Recurrent Callers
As you are aware some of the callers to the crisis line do call more than once. If you know that you are talking to a recurrent caller who may have already received a referral, instead of introducing the project all over again it is ok to just say ‘have you been asked about the new project’. Please also be aware that some recurrent callers may decline when first asked but then choose to find out more information on another occasion, and that’s ok.

Callers in the project can still access the crisis line
Callers who participate in this project will still be free to call the Lifeline crisis line if they have any personal concerns they wish to discuss. In such cases you should treat this caller as you would any other.
Steps to Caller Referral: What do I need to do?

Accessing the online referral sheet:
1. Double-click on the internet explorer icon on your desktop that says ‘ECCO Referral’

The referral sheet will appear on the screen.
Read the bolded text to callers, fill in the appropriate information and then click on ‘submit’.

ECCO Invitation - Melbourne

Q1. Enter your TCID:

Before we finish talking, I just wanted to let you know about a new program that is giving callers some additional help and support if they are feeling down or stressed. We are testing this program out with the Australian National University. If you are interested, the project coordinator can call you back and talk to you about the program. Your involvement in the project is entirely voluntary.

Q2. Would you be interested in finding out more information?
Choose only one of the following
- Yes
- Maybe
- No
- Invited in a previous call
- No answer

If caller says ‘no’ or was ‘invited in a previous call’: Go to the bottom of the page and click on ‘submit’.

Some of the programs are internet-based and to be involved you would need to have access to the internet.

Q3. Do you have access or could you get access to the internet? It could be at home, work, library, or internet cafe.
- Yes
- No
- No answer

If caller says ‘no’: Go to the bottom of the page and click on ‘submit’. DO NOT collect their contact details.

Now can I take your contact details so that the project coordinator can call you back. These contact details will be kept separate from this call and any calls you may make to Lifeline in the future, and will only be accessed by authorised project staff.

Q4. Is that ok?
- Yes
- No
- No answer

If the caller says ‘no’: click on ‘submit’.

Q5. Name (first name only is ok)

Q6. PHONE NUMBER (Don’t forget area code)

Q7. What is the best time to call you back? You should receive a call in the next few days.

Please direct all enquiries to ECCO Survey Manager
Page authorised by: Director, Centre for Mental Health Research
Questions Callers May Ask You About the Project

The project coordinator will answer any questions the caller has about the project when they receive the call-back. Callers will still be able to decline participation in the project after receiving a call-back from the project coordinator. Below are some questions that callers may ask you at this referral stage:

What type of help and support will the project be offering?
The project is part of a research program that will be offering both Internet and telephone based support programs to help you improve your mental health.

How will you ensure my contact details will be confidential?
Your contact details will be entered into a secure computer program which is password protected and once I type them in only the project staff can access them. Also, Lifeline and the Australian National University follow the Privacy Act 1988.

Will this affect my use of the Lifeline crisis line?
No. This project is an additional service that Lifeline is providing to the crisis line. If you are involved in the project you will still be free to call this crisis line when you feel you need to.

Why are you only offering Internet-based programs?
This particular project is looking at new ways of providing callers with services on the Internet. We do understand that not everyone has the Internet and therefore the project will not cater for everyone.

What type of contact will the project involve?
The amount of contact will vary depending on the program you receive. Any contact you do receive will be either by telephone or post.

Note: if a caller is asking you a lot of questions about the project, or you are not sure how to answer a question, encourage the caller to receive a ‘no obligation’ call-back from the project coordinator who can discuss the project in more detail with them.
Appendix 5

Recruitment script
Q1. Enter your TCID?

Before we finish talking I just wanted to let you know about a new program that is giving callers some additional help and support if they are feeling down or stressed. We are testing this program out with the Australian National University. If you are interested, the project coordinator can call you back and talk to you about the program. Your involvement in the project is entirely voluntary.

Q2. Would you be interested in finding out more information?

- Yes
- No
- Maybe
- Invited in a previous call

If callers says 'no', go to the bottom of the page and click on submit.

Some of the programs are internet-based and to be involved you would need to have access to the Internet.

Q3. Do you have access or could you get access to the Internet? It could be at home, work, library or Internet café.

- Yes
- No

If callers says 'no', go to the bottom of the page and click on submit.

Now can I take your contact details so the project coordinator can call you back. These contact details will be kept separate from this call and any calls you may make to Lifeline in the future, and will only be accessed by authorised project staff.

Q4. Is that ok?

- Yes
- No

If callers says 'no', go to the bottom of the page and click on submit.

Q5. Name (firstly name only is ok)?

Q6. Phone Number (don't forget area code)?

Q7. What is the best time to call you back? You should receive a call in the next few days.
Appendix 6

Screening script and survey
Hi, my name is _______ and I am from the Lifeline - Australian National University project. I am ringing today to follow-up on an invitation you received from a Lifeline telephone counsellor [insert day] to find out more information about the new project we are running.

Today I wanted to give you some more information about the project, and ask you a few questions. Is now a good time to talk? It should take about 15 minutes.

Before I tell you about the project I should just say at this stage that not everyone can be involved in the project as it is designed for people of certain ages with a certain background. Do you mind if I ask you a few questions to check this? (if yes, continue)

SCREENING QUESTIONNAIRE

Today’s date: ____________________

Trial ID #: ______________________

Q1: Just to confirm you have Internet access?

☐ YES ☐ NO

If no: Some of the programs we are trialling will require participants to visit some websites and we can’t guarantee that you won’t be allocated to the Internet programs. Thank you for your interest in the project. (End call here).

Q2: Are you 18 or older?

☐ YES ☐ NO

Q3: Have you ever been diagnosed with psychosis, schizophrenia or bipolar disorder?

☐ YES ☐ NO

Q4: Are you currently receiving cognitive-behavioural therapy?

☐ YES ☐ NO

Q5: Do you have any vision or reading problems that may cause difficulties in seeing/reading information on a computer screen?

☐ YES ☐ NO

Now I have some questions about how you have been feeling. In the past 4 weeks....

Q6: About how often did you feel tired out for no good reason?

☐ All the time

☐ Most of the time

☐ Some of the time

☐ A little of the time
Q7: About how often did you feel nervous?

- All the time
- Most of the time
- Some of the time
- A little of the time
- None of the time

Q8: About how often did you feel so nervous that nothing could calm you down?

- All the time
- Most of the time
- Some of the time
- A little of the time
- None of the time

Q9: About how often did you feel hopeless?

- All the time
- Most of the time
- Some of the time
- A little of the time
- None of the time

Q10: About how often did you feel restless or fidgety?

- All the time
- Most of the time
- Some of the time
- A little of the time
- None of the time

Q11: About how often did you feel so restless you could not sit still?

- All the time
- Most of the time
- Some of the time
- A little of the time
- None of the time
Q12: About how often did you feel depressed?

- All the time
- Most of the time
- Some of the time
- A little of the time
- None of the time

Q13: About how often did you feel that everything was an effort?

- All the time
- Most of the time
- Some of the time
- A little of the time
- None of the time

Q14: About how often did you feel so sad that nothing could cheer you up?

- All the time
- Most of the time
- Some of the time
- A little of the time
- None of the time

Q15: About how often did you feel worthless?

- All the time
- Most of the time
- Some of the time
- A little of the time
- None of the time

If caller is ineligible at any stage of the questionnaire, this will be explained to the caller and they will be offered additional support materials.

(If eligible) Thanks for answering the questions, which indicate that the project may be suitable for you. If you would like to continue, I would now like to give you some detailed information about the project.

The project will be carried out by the Australian National University and Lifeline and is called the ECCO project. We want to look at the different ways we can extend Lifeline's telephone counselling service to provide more resources and support to callers. In
the project we will be looking at four different support programs. We are going to compare the programs with each other to see which ones are most helpful. Everybody who participates in the project will be assigned by chance to participate in one of the four programs. So this means you can't choose your program.

The four programs are:

1. A program which consists of visiting two specially designed web sites. One provides information about depression and the treatments for depression. The other is an interactive program that teaches you methods to prevent depression. And so if you were in this program you would visit different parts of the web sites once a week for about 30 minutes for 6 weeks.

2. Same as above. In addition to visiting the web sites you would also receive a phone call once a week from a Lifeline project support person to see how you are going with the web sites.

3. A Lifeline project support person would ring you every week for 6 weeks to discuss lifestyle factors that some people believe may put people at risk for depression. The support person would ask you about specific aspects of your lifestyle such as activity level, nutrition, career style and health issues. This will take about 20 minutes each week.

4. The same as the first program – visiting two specially designed web sites once a week for about 30 minutes for 6 weeks. If you were in this program you will start in about six months rather than straight away.

During your participation in any of these programs you will still be able to call the Lifeline crisis line as you usually would.

Also, we are interested in knowing how you went with the program you received and so we will be asking you to fill out 4 surveys – one before starting your program, one at the end of the program, one 6 months after finishing the program, and a final survey 12 months after finishing the program. All the information that you provide to us – in the surveys, on the websites or over the phone will be kept confidential as far as the law allows and will only be accessible to authorised project staff. Your information will be stored with an ID and not your name.

Participation in this project is voluntary. If you begin the project you can stop participating at any time without providing a reason and without any penalty. Do you have any questions about the project so far?

Q16: Are you willing to be involved?

[ ] YES [ ] NO

If no: That's ok. Thank you very much for your interest in the project. (End call here).

Q17: If you are selected for a program that has weekly telephone support, what would be the best time to call you back each week?

<table>
<thead>
<tr>
<th></th>
<th>Mornings</th>
<th>Afternoons</th>
<th>Evenings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anyday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunday</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHECK NAME: ____________________________________________

CHECK PHONE NUMBER: ____________________________________________

ALTERNATIVE PHONE NUMBER/S: ____________________________________________

OBTAIN POSTAL ADDRESS: ____________________________________________

Who will benefit from MoodGIFT?

Anyone who wants to improve their emotional well-being can benefit from the training provided by MoodGIFT.

In particular, the CBT modules of MoodGIFT are an effective treatment for depression and anxiety, whether self-help, or in conjunction with a health-care professional.

The good news is that CBT also is the first-line treatment for depression.

www.moodgift.anu.edu.au

A comprehensive online source of information about depression.

What sort of information will I find?

BluePages have:

1. Information about the symptoms of depression, and how it is diagnosed.

2. Summaries (with scientific evidence) of which, existing, psychological and alternative treatments work for depression (and which don't).

3. An extensive list of people, organizations, books, websites and other resources that may be helpful to people who are depressed.

Other features

BluePages also provide depression & anxiety support through an online medical support community where you can share personal or other experiences of depression.
Appendix 7

Resources provided to ineligible participants due to K-10 score
Working out with MoodGYM
An online program to help you deal with your emotions and cope with life's stresses.

What is MoodGYM?
MoodGYM is a free, interactive online program which provides cognitive behavioural training (CBT).

MoodGYM teaches helpful ways of thinking about life's problems, as well as methods to improve self-esteem, to better relate to others, and to relax.

MoodGYM is like an interactive self-help guide, which gives you feedback along the way, and takes you through online exercises to help you work out how to handle life's challenges more effectively.

Who will benefit from MoodGYM?
Anyone who wants to improve their emotional wellbeing can benefit from the training provided by MoodGYM.

In particular, the CBT taught by MoodGYM is an effective treatment for depression, used either by itself, or in conjunction with a health care professional.

The good news is that CBT also helps prevent depression.

www.moodgym.anu.edu.au

Does MoodGYM work?
MoodGYM was developed by experts at the ANU Centre for Mental Health Research, who have also evaluated the effectiveness of the site.

These researchers have shown that MoodGYM significantly reduces depressive feelings and unhelpful ways of thinking in those who use it.


www.bluepages.anu.edu.au

A comprehensive online source of information about depression.

What sort of information will I find?
BluePages has:

- Information about the symptoms of depression and how it is diagnosed.
- Summaries (based on scientific evidence) of which medical, psychological and alternative treatments work for depression (and which don't).
- An extensive list of people, organizations, books, websites and other resources that may be helpful to people who are depressed.

Other features
BluePages also provides depression & anxiety quizzes (you can see how your depressive and anxiety symptoms compare with community norms), and a specialised search engine to search over a range of Australian and international depression sites.

BlueBoard
BluePages also incorporates the BlueBoard bulletin board, an online mutual support community where you can share personal or carer experiences of depression.
Appendix 8

Resources provided to ineligible participants due to diagnosis
Bipolar disorder is a mood disorder which involves periods of both low (depressed) and high or excited (manic) mood states. It was previously referred to as manic-depressive illness. Bipolar disorder affects approximately 1 to 2% of the population.

WHAT CAUSES BIPOLAR DISORDER?
As with any illness, a combination of factors is believed to trigger bipolar disorder. These include a family history of bipolar disorder, stressful life events and the use of illicit drugs.

SIGNS AND SYMPTOMS OF BIPOLAR DISORDER
If you, a friend or a family member is experiencing the symptoms listed below, it’s important to contact your family doctor. The symptoms may indicate a possible episode of bipolar disorder. Most people with bipolar disorder experience prolonged depression for weeks to months, with rather brief manic periods lasting days to weeks.

HOW DO YOU RECOGNISE A MANIC STATE?
- Increased energy
- Irritability
- Overactivity
- Increased spending
- Increased sex drive
- Racing thoughts
- Rapid speech
- Decreased sleep
- Grandiose ideas
- Hallucinations and/or delusions

"Ever since I can remember my brain has gone at a thousand miles an hour. I’ve had periods in my life when I virtually couldn’t sleep at night… because my brain was going mad. Not mad, it was creative. Millions of thoughts, millions of ideas."

HOW DO YOU RECOGNISE A DEPRESSED STATE?
- Low mood
- Irritability
- Loss or change of appetite
- Lack of motivation
- Low self-esteem
- Sleep disturbance
- Suicidal thoughts
- Hallucinations and/or delusions
- Difficulty managing small tasks or making simple decisions

"I was suicidal, withdrawn, isolated, hating the world, thinking everyone hated me."

HOW IS BIPOLAR DISORDER TREATED?
A combination of medical and psychological treatments is used to treat bipolar disorder. Everyone is different. The most important thing is to receive a treatment that works for you. Your doctor can help with this.

MEDICATION
A mood stabiliser such as lithium, or other newer agents, is often used to treat a manic episode. Antidepressant medication is used to treat depression, usually in conjunction with a mood stabiliser.

PSYCHOLOGICAL THERAPIES
Psychological therapies such as Cognitive Behaviour Therapy (CBT) are used to help manage symptoms of both a manic and depressive state.
Bipolar disorder

FACT SHEET 16

HOW CAN YOU MANAGE YOUR ILLNESS?

• Educate yourself about the illness and its treatment.
• Talk to other people living with this illness or read their stories. Learn what works for them and how this may help you.
• Find a therapist you trust to help you work through issues.
• Learn to recognise the early warning signs of an impending relapse. If you recognise the signs and seek help early enough, you may be able to avoid a full relapse.
• Ask a trusted friend to help you. This person can advise you to seek help when your mental state is deteriorating. People with bipolar disorder may lose insight as their condition worsens.
• Draw on support from family and friends. Encourage them to find out more about the illness.
• Take medication as prescribed. When people feel well it can be tempting to stop medication. Stopping medication is a common cause of relapse.
• If your medication doesn’t seem to be working, talk to your doctor. It may be possible to alter the dose or try a different type of medication altogether.
• Exercise regularly.
• Establish a regular sleeping pattern.
• Avoid artificial stimulants and depressants such as coffee, alcohol, marijuana and other drugs.
• Keep a diary of life events/stressors.

HOW CAN YOU HELP SOMEONE WITH BIPOLAR DISORDER?

• Let the person know you’ve noticed a change in their behaviour.
• Suggest the person seeks help from a health professional.
• Encourage the person to take their medicine as prescribed by the doctor and keep appointments.
• Be aware of the warning signs of an impending mood swing. Encourage the person to see their doctor as soon as possible. If you are a close friend or family member, you could go with the person to see the doctor.
• Help the person make plans in advance to limit some of the damage that can be done during a manic episode. For example, when the person is well, make an agreement to withhold their credit cards during a manic episode.
• Educate yourself about the illness.
• Look after yourself. Seek support for your own needs by joining a support group, keeping in touch with your family doctor and taking time out. By keeping yourself physically and mentally healthy, you will be better equipped to support the person with the illness.
GETTING HELP FOR YOURSELF OR OTHERS

What to do in an emergency
If you or someone you care about is in crisis and you feel immediate action is needed, you can contact the services listed below and they will be able to assist you.

- Ambulance: 000
- Lifeline: 13 11 14
- Kids Help Line: 1800 55 1800 (up to the age of 18) (free call, 24 hours)
- Accident and Emergency department of your local hospital
- Call the local Crisis Assessment or Acute Treatment team. For contact details call your local hospital or health service provider
- Emergency appointment with your local general practitioner. Check the White Pages for the phone number.

FAMILY DOCTOR
Visiting your doctor is often a good first step in getting help for a physical or mental health problem. Some doctors may manage your mental health themselves, while others may refer you to a specialist such as a psychologist or psychiatrist.

It’s not uncommon for bipolar disorder to be misdiagnosed, for example as depression only, alcohol or drug abuse, Attention Deficit Hyperactivity Disorder (ADHD) or schizophrenia.

That’s why it’s helpful to make it clear to the doctor or counsellor that you are experiencing highs and lows. You may also find it helpful to write down what you want to say to the doctor before the appointment.

PSYCHIATRISTS
Psychiatrists are doctors who have specialised in mental health. They can make medical as well as psychological assessments, conduct medical tests and prescribe medication. Typically, psychiatrists use psychological treatments such as Cognitive Behaviour Therapy or Interpersonal Therapy alongside medication.

PSYCHOLOGISTS
Psychologists are health professionals who provide psychological therapy (psychotherapy) in the treatment of mental illness or distress. Common types of psychotherapy are Cognitive Behaviour Therapy (CBT) and Interpersonal Therapy (IPT). These are generally known as ‘talking therapies’.

WHEN DO YOU NEED TO GO TO HOSPITAL?
Occasionally a person will need to go to hospital for treatment if they:

- Have severe symptoms
- Have complicated medical problems
- Are in danger of harming themselves
- Need specific treatments.
MORE INFORMATION

Telephone-based services:
A number of telephone help lines are available to assist you and provide information.

Lifeline's Just Ask Mental Health Information line: 1300 13 11 14 (Monday - Friday, 9am to 5pm EST).
SANE Helpline: 1800 187 263 (Monday - Friday, 9am to 5pm EST)
Carers Australia: 02 6122 9900
Mensline Australia: 1300 78 99 78 (7 days, 24 hours)

Web-based services:

blueVoices is a beyondblue reference group made up of people who have either cared for someone with depression or experienced depression themselves. blueVoices has a subgroup which focuses on the needs and experiences of people with bipolar disorder.

For more information on blueVoices and their activities visit the blueVoices section of the beyondblue website or email bluevoices@beyondblue.org.au
What is Schizophrenia?
What is schizophrenia?

Schizophrenia is a mental illness which affects one person in every hundred.

Schizophrenia interferes with the mental functioning of a person and, in the long term, may cause changes to a person's personality.

First onset is usually in adolescence or early adulthood. It can develop in older people, but this is not nearly as common.

Some people may experience only one or more brief episodes in their lives. For others, it may remain a recurrent or life-long condition.

The onset of illness may be rapid, with acute symptoms developing over several weeks, or it may be slow, developing over months or even years.

During onset, the person often withdraws from others, gets depressed and anxious and develops extreme fears or obsessions.

What are the symptoms of schizophrenia?

Major symptoms of schizophrenia include:

Delusions - false beliefs of persecution, guilt or grandeur or being under outside control. People with schizophrenia may describe plots against them or think they have special powers and gifts. Sometimes they withdraw from people or hide to avoid imagined persecution.

Hallucinations - most commonly involving hearing voices. Other less common experiences can include seeing, feeling, tasting or smelling things which to the person are real but which are not actually there.

Thought disorder - where the speech may be difficult to follow; for example, jumping from one subject to another with no logical connection. Thoughts and speech may be jumbled and disjointed. The person may think someone is interfering with their mind.
Other symptoms of schizophrenia include:

**Loss of drive** - where often the ability to engage in everyday activities such as washing and cooking is lost. This lack of drive, initiative or motivation is part of the illness and is not laziness.

**Blunted expression of emotions** - where the ability to express emotion is greatly reduced and is often accompanied by a lack of response or an inappropriate response to external events such as happy or sad occasions.

**Social withdrawal** - this may be caused by a number of factors including the fear that someone is going to harm them, or a fear of interacting with others because of a loss of social skills.

**Lack of insight or awareness of other conditions** - because some experiences such as delusions and hallucinations are so real, it is common for people with schizophrenia to be unaware they are ill. For this and other reasons, such as medication side-effects, they may refuse to accept treatment which could be essential for their well-being.

**Thinking difficulties** - a person’s concentration, memory, and ability to plan and organise may be affected, making it more difficult to reason, communicate, and complete daily tasks.

**What causes schizophrenia?**

No single cause has been identified, but several factors are believed to contribute to the onset of schizophrenia in some people:

**Genetic factors**

A predisposition to schizophrenia can run in families. In the general population, only 1 per cent of people develop it over their lifetime. If one parent suffers from schizophrenia, the children have a 10 per cent chance of developing the condition - and a 90 per cent chance of not developing it.

**Biochemical factors**

Certain biochemical substances in the brain are believed to be involved in this condition, especially a neurotransmitter called dopamine. One likely cause of this chemical imbalance is the person’s genetic predisposition to the illness.
**Family relationships**

No evidence has been found to support the suggestion that family relationships cause the illness. However, some people with schizophrenia are sensitive to any family tension which, for them, may be associated with relapses.

**Environment**

It is well recognised that stressful incidents often precede the onset of schizophrenia. They often act as precipitating events in vulnerable people. People with schizophrenia often become anxious, irritable and unable to concentrate before any acute symptoms are evident. This can cause relationships to deteriorate, possibly leading to divorce or unemployment. Often these factors are then blamed for the onset of the illness when, in fact, the illness itself has caused the crisis. It is not, therefore, always clear whether stress is a cause or a result of illness.

**Drug use**

The use of some drugs, especially cannabis and LSD, is likely to cause a relapse in schizophrenia.

---

**Myths, misunderstanding and facts**

Myths, misunderstanding, negative stereotypes and attitudes surround the issue of mental illness and, in particular, schizophrenia. They result in stigma, isolation and discrimination.

**Do people with schizophrenia have a split personality?**

**No.** Schizophrenia refers to the change in the person's mental function, where thoughts and perceptions become disordered.

**Are people with schizophrenia intellectually disabled?**

**No.** The illness is not an intellectual disability.

**Are people with schizophrenia dangerous?**

**No.** People with schizophrenia are generally not dangerous when receiving appropriate treatment. However, a minority of people with the illness become aggressive when experiencing an untreated acute episode, because of their fears. This is usually expressed to family and friends, rarely to strangers.
Are people on medication for schizophrenia addicted to the medication?

No. The medication helps to reduce the severity of the symptoms. The specific medications for treatment of schizophrenia are not addictive.

Is schizophrenia a lifelong mental disorder?

Not necessarily. Most people, with professional help and social support, learn to manage their symptoms and have a satisfactory quality of life. It is also a fact that about 20-30 per cent of people with schizophrenia have only one or two psychotic episodes in their lives.

What treatment is available?

The most effective treatment for schizophrenia involves medication, psychological counselling and help with managing its impact on everyday life.

The development of anti-psychosis medications has revolutionised the treatment of schizophrenia. Now, most people can leave hospital and live in the community. Not all people with schizophrenia have to go to hospital and care can be delivered in the community.

These medications work by correcting the chemical imbalance associated with the illness. New but well tested medications are emerging which promote a much more complete recovery with fewer side effects.

Schizophrenia is an illness, like many physical illnesses. For example, just as insulin is a lifeline for a person with diabetes, anti-psychosis medications are a lifeline for a person with schizophrenia.

As with diabetes, some people will need to take medication indefinitely to prevent a relapse and keep symptoms under control.
Though there is no known cure for schizophrenia, regular contact with a doctor or psychiatrist and possibly a multidisciplinary team of mental health nurses, social workers, occupational therapists and psychologists can help a person with schizophrenia organise and do the important things in life.

Sometimes, specific therapies directed towards symptoms such as delusions may also be useful.

Counselling and support can be helpful for problems with finances, accommodation, work, interaction with others and loneliness.

Effective treatment can assist the person in leading a productive life.

Where to go for help

- Your general practitioner.
- Your school or university counsellor.
- Your community mental health centre.

For information on services, check the Community Help and Welfare Services and 24-hour emergency numbers in your local telephone directory.

For immediate counselling assistance, contact Lifeline on 13 1114. Lifeline can supply you with contacts, further information and help.

Copies of this and related brochures, which include:

Mental illness: the facts
What is bipolar mood disorder?
What is depression?
What are eating disorders?
What are anxiety disorders?
are available from the Mental Health Branch of the Department of Health and Ageing:

GPO Box 9848
CANBERRA ACT 2601
Phone: 1800 066 247
Fax: 1800 634 400

Appendix 9

Information sheet for participants
Why should I participate?

Many people enjoy their involvement in research because they like contributing to activities that will benefit the whole community. This project will hopefully enable you to find out more about depression and learn some skills that might help you deal with or prevent depression in your life. Your participation will also help Lifeline to develop new ways of providing help and support to callers facing similar problems.

What about confidentiality?

Because of the personal nature of the information we collect, it is important that you know that every phase of our research is carried out strictly in accordance with National Health and Medical Research Council guidelines. All the information you provide is identified by an ID number only and files linking your name and your ID number are stored separately. Survey responses, website data, and all information collected over the phone will be recorded and stored on a password protected computer at Lifeline and at the Centre for Mental Health Research, ANU, and are only accessible to authorised project staff. The results of the project may be published in reports to be distributed throughout Lifeline centres and in academic journal articles. However, only group results will be reported, and no information that can identify any individual will be published. We are committed to maintaining the security of all the information collected throughout this project.

How can I get further information?

We appreciate your interest in our project and look forward to your involvement. If you would like further information before deciding to participate or would like to contact us directly at any time to discuss the project, please phone ECCO project coordinator Nicole on (07) 3250 1914 or Helen Christensen on (02) 6125 8409 or e-mail ecco@anu.edu.au.

If you have any questions about ethics, please contact the Ethics Officer for Human Research, The Australian National University, ACT 0200.
Tel: (02) 6125 7945.
Email: Human.Ethics.Officer@anu.edu.au.
The ECCO Project

The ECCO project is a research study looking at different ways to extend Lifeline's telephone counselling service to provide more resources and support to callers.

Who is conducting the project?

The project is a collaboration between Lifeline Australia and the Centre for Mental Health Research (CMHR), based at The Australian National University. At the CMHR, we study common mental health problems and develop and assess treatments that may make a difference to people's mental health.

The research team working on the project are Professor Helen Christensen, Associate Professor Kathy Griffiths, Professor Andrew Mackinnon and Ms Dawn Smith. Professor Christensen is the Director of the Centre for Mental Health Research and has worked extensively with Associate Professor Griffiths in the area of depression and the Internet. Professor Mackinnon is the Deputy Director of CMHR and has expertise in the area of research study design and statistics. Dawn Smith is the CEO of Lifeline Australia.

What is the project about?

In the project we will be comparing four different support programs with each other to see which helps the most. Everyone who participates in the project will be assigned by chance to participate in one of the four following programs:

1. Visit two specially designed websites. One provides information about depression and the other is an interactive program that teaches skills for preventing depression. If you were in this program, you would visit different parts of the websites once a week for 6 weeks.

2. As above, visit two specially designed websites once a week for 6 weeks. In addition to visiting websites, you will also receive a phone call once a week from a project support person to discuss how you are going with the websites.

3. A project support person will ring you every week for 6 weeks to discuss lifestyle factors that some people believe may put people at risk for depression. The support person will ask you about specific aspects of your lifestyle such as activity level, nutrition, career, and health issues.

4. Receive program 1 described above. Instead of straight away, you will complete this program 6 months after you start the project.

Why is this research important?

Depression is common in our community but not everyone who experiences the symptoms of depression knows how to seek the right type of help or the most effective treatments.

Lifeline is looking for ways to better support callers who may be experiencing symptoms of depression but we first need to know more about the kinds of treatments people prefer and what treatments are the most helpful in preventing or improving depression.

What does participation involve?

If you are chosen to complete programs 1, 2 or 3, you would need around half an hour a week for 6 weeks to complete the tasks. So that we can see any changes that may occur as a result of the programs, you will be asked to fill in 4 surveys – one at the start of the program, one at the end of the program, one at 6 months after the program, and one at 12 months after the program.

If you are willing to participate in the ECCO Project please:

- Read and sign the consent form included with this brochure.
- Fill in the survey that arrived with this brochure.
- Return the consent form and survey in the reply paid envelope provided.

Are there any risks?

Your participation in the project will help us to find out about new ways to support Lifeline callers. We believe that most people participating in the project will enjoy the experience and find it valuable.

However, if you no longer wish to participate at any stage during the project, you can stop at any time without giving a reason. It will not affect your relationship with Lifeline now or in the future.

Sometimes people who are very distressed have thoughts of harming themselves. If, at any time, you feel this way we suggest that you contact Lifeline on 13 11 14.
Appendix 10

Consent form for participants
Consent for Participation in the ECCO Project

In the ECCO project we want to look at the different ways we can extend Lifeline’s telephone counselling service to provide more resources and support to callers. In the project we will be looking at four different support programs. We are going to compare the programs with each other to see which ones are most helpful. Everybody who participates in the ECCO project will be assigned by chance to participate in one of the four programs. This means you can’t choose your program. The four programs are:

1. Visit two specially designed web sites. One provides information about depression, and the treatments for depression. The other is an interactive program that teaches you methods to prevent depression. If you were in this program you would visit different parts of the web sites once a week for 30 minutes, for 6 weeks.

Or

2. As above, visit two specially designed websites once a week for 30 minutes, for 6 weeks. In addition to visiting the web sites you will also receive a phone call once a week from a Lifeline project support person to see how you are going with the web sites.

Or

3. A Lifeline project support person will ring you every week for 6 weeks to discuss lifestyle factors that some people believe may put people at risk for depression. The support person would ask you about specific aspects of your lifestyle such as activity level, nutrition, career style, and health issues. This would take about 20 minutes each week.

Or

4. Receive the program as described in 1 above. However, this program will start in about 6 months time rather than straight away.

Your participation in the project will help us to find out about the resources and support that may be helpful for Lifeline callers. If, after enrolling in the project you no longer wish to participate, you can withdraw at any time without giving a reason. Also, declining participation or withdrawing from the project will not affect your relationship with Lifeline now or in the future.

Time Involved

If you were assigned to program 1, 2, or 3 you would need around half an hour a week for 6 weeks to complete the tasks that will be asked of you in the respective programs. Also, during the project you will be asked to fill out 4 surveys – one before starting the program, one at the end of the program, one 6 months after the program and a final survey 12 months after the program. Each survey should take about half an hour to complete.

Confidentiality

All the information you provide in the surveys, on the web sites or over the phone will be recorded and stored in a password protected computer at Lifeline and the Australian National University, and will only be accessible to authorised project staff. This information will be identified by an ID number only, and files linking your name and
your ID number are stored separately. We are committed to maintaining the security of all the information that will be collected throughout this project.

The results of the project may be published in reports to be distributed throughout Lifeline centres and in academic journal articles. Only group results will be reported, no information that can identify any individual will be published.

Thank you very much for your interest in our project and we look forward to your involvement. If you would like further information before deciding to participate or would like to contact us directly to discuss the project, please phone the ECCO project coordinator Nicole on (07) 3250 1914 or Helen Christensen on (02) 6125 8409.

Yours sincerely,

Professor Helen Christensen

A formal consent form to participate in the ECCO Project, conducted by the Centre for Mental Health Research, Australian National University and Lifeline Australia.

I hereby confirm that after having read the above information I agree to participate in the ECCO Project. I also confirm that I have read the information flyer. I have been informed that participation is voluntary and that at any time and without giving a reason, I may withdraw from the study.

I understand that the results of the ECCO Project may be published but that my name will not be released and that I cannot be identified in any way from the material published.

Sign: ___________________________  Date: ____________________________

Print Name: __________________________

If you have any questions about ethics, please contact the Ethics Officer for Human Research, The Australian National University, ACT 0200, Tel: 6125 2900; email: Human.Ethics.Office@anu.edu.au.

You can also contact ECCO project coordinator Nicole on (07) 3250 1914 or Helen Christensen on (02) 6125 8409 or email ecco@anu.edu.au

Please return this consent form as soon as possible in the reply paid enveloped provided.
Appendix 11

Pre-intervention questionnaire (all participants)
ECCO Survey 1

Confidentiality
We would like to emphasise that this is a voluntary survey and the information you provide will be treated in the strictest confidence. Your survey will be stored with an ID number only. Your name will be stored separately from all other information that you have provided.

Thank you for taking part in this project.

Please return this survey as soon as possible in the reply paid envelope provided.
1. What is your sex?
   - Male [ ]
   - Female [ ]

2. How old are you?
   - Years [ ]

3. What is your current relationship situation?
   - Never Married [ ]
   - Married [ ]
   - De facto [ ]
   - Separated [ ]
   - Divorced [ ]
   - Widowed [ ]

4. What is the highest level of primary or secondary schooling that you have completed?
   - Some primary [ ]
   - All of primary [ ]
   - Some secondary [ ]
   - Four years of secondary [ ]
   - Six years of secondary [ ]

5. What is the highest level of post-secondary or tertiary education that you have completed?
   - Trade/apprenticeship [ ]
   - Other certificate [ ]
   - Associate or undergraduate diploma [ ]
   - Bachelor's degree [ ]
   - Higher degree [ ]
   - Other [ ]
   - None [ ]

6. Are you presently studying for any of the following?
   - Trade/apprenticeship [ ]
   - Other certificate [ ]
   - Associate or undergraduate diploma [ ]
   - Bachelor's degree [ ]
   - Higher degree [ ]
   - Other [ ]
   - None (go to Q6) [ ]

7. Are you studying?
   - Full-time [ ]
   - Part-time [ ]

8. How would you describe your current employment status?
   - Employed full-time [ ]
   - Employed part-time and looking for full-time work [ ]
   - Employed part-time [ ]
   - Unemployed – looking for work [ ]
   - Not in the labour force [ ]

9. What is your main activity if you are not in the labour force?
   - Home duties/caring for children [ ]
   - Retired/voluntarily out of work force [ ]
   - Studying [ ]
   - Caring for aged, disabled or ill person [ ]
   - Recovering from illness or injury [ ]
   - Voluntary work [ ]
   - Other [ ]
   - Not applicable [ ]

10. What is your main or usual occupation? (Please give a title of the job, or a brief description)

11. If you have been employed in the past, what was your main or usual occupation? (Please give a title of the job, or a brief description)

12. Have you ever in your life been markedly depressed; that is, for several weeks or more, you felt sad, lost interest in things and felt lacking in energy?
   - Yes [ ]
   - No [ ]
13 Did you see a counsellor or a doctor for it at the time?

Yes □ 1
No □ 2

14 In the last 4 weeks, have you had an anxiety attack – suddenly feeling fear or panic?

Yes □ 1
No □ 2

15 Do these attacks bother you a lot, or are you worried about having another attack?

Yes □ 1
No □ 2

16 Do you have any of the following fears so that you avoid them: eating or drinking with other people, being watched or stared at, talking to people in authority, being criticised, or speaking to an audience?

Yes □ 1
No □ 2

17 Are you frightened of spiders, snakes, or other animals so much that it interferes with your coping capacity?

Yes □ 1
No □ 2

Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

18 I was bothered by things that usually don't bother me.

Rarely or none of the time (less than 1 day) □ 1
Some or a little of the time (1-2 days) □ 2
Occasionally or a moderate amount of time (3-4 days) □ 3
Most or all of the time (5-7 days) □ 4

19 I did not feel like eating; my appetite was poor.

Rarely or none of the time (less than 1 day) □ 1
Some or a little of the time (1-2 days) □ 2
Occasionally or a moderate amount of time (3-4 days) □ 3
Most or all of the time (5-7 days) □ 4

20 I felt that I could not shake off the blues even with help from my family or friends.

Rarely or none of the time (less than 1 day) □ 1
Some or a little of the time (1-2 days) □ 2
Occasionally or a moderate amount of time (3-4 days) □ 3
Most or all of the time (5-7 days) □ 4

21 I felt that I was just as good as other people.

Rarely or none of the time (less than 1 day) □ 1
Some or a little of the time (1-2 days) □ 2
Occasionally or a moderate amount of time (3-4 days) □ 3
Most or all of the time (5-7 days) □ 4

22 I had trouble keeping my mind on what I was doing.

Rarely or none of the time (less than 1 day) □ 1
Some or a little of the time (1-2 days) □ 2
Occasionally or a moderate amount of time (3-4 days) □ 3
Most or all of the time (5-7 days) □ 4

23 I felt depressed.

Rarely or none of the time (less than 1 day) □ 1
Some or a little of the time (1-2 days) □ 2
Occasionally or a moderate amount of time (3-4 days) □ 3
Most or all of the time (5-7 days) □ 4

24 I felt that everything I did was an effort.

Rarely or none of the time (less than 1 day) □ 1
Some or a little of the time (1-2 days) □ 2
Occasionally or a moderate amount of time (3-4 days) □ 3
Most or all of the time (5-7 days) □ 4

25 I felt hopeful about the future.

Rarely or none of the time (less than 1 day) □ 1
Some or a little of the time (1-2 days) □ 2
Occasionally or a moderate amount of time (3-4 days) □ 3
Most or all of the time (5-7 days) □ 4
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>26</strong> I thought my life had been a failure.</td>
<td><strong>32</strong> People were unfriendly.</td>
</tr>
<tr>
<td>Rarely or none of the time (less than 1 day)</td>
<td>Rarely or none of the time (less than 1 day)</td>
</tr>
<tr>
<td>Some or a little of the time (1-2 days)</td>
<td>Some or a little of the time (1-2 days)</td>
</tr>
<tr>
<td>Occasionally or a moderate amount of time</td>
<td>Occasionally or a moderate amount of time</td>
</tr>
<tr>
<td>(3-4 days)</td>
<td>(3-4 days)</td>
</tr>
<tr>
<td>Most or all of the time (5-7 days)</td>
<td>Most or all of the time (5-7 days)</td>
</tr>
<tr>
<td><strong>27</strong> I felt fearful.</td>
<td><strong>33</strong> I enjoyed life.</td>
</tr>
<tr>
<td>Rarely or none of the time (less than 1 day)</td>
<td>Rarely or none of the time (less than 1 day)</td>
</tr>
<tr>
<td>Some or a little of the time (1-2 days)</td>
<td>Some or a little of the time (1-2 days)</td>
</tr>
<tr>
<td>Occasionally or a moderate amount of time</td>
<td>Occasionally or a moderate amount of time</td>
</tr>
<tr>
<td>(3-4 days)</td>
<td>(3-4 days)</td>
</tr>
<tr>
<td>Most or all of the time (5-7 days)</td>
<td>Most or all of the time (5-7 days)</td>
</tr>
<tr>
<td><strong>28</strong> My sleep was restless.</td>
<td><strong>34</strong> I had crying spells.</td>
</tr>
<tr>
<td>Rarely or none of the time (less than 1 day)</td>
<td>Rarely or none of the time (less than 1 day)</td>
</tr>
<tr>
<td>Some or a little of the time (1-2 days)</td>
<td>Some or a little of the time (1-2 days)</td>
</tr>
<tr>
<td>Occasionally or a moderate amount of time</td>
<td>Occasionally or a moderate amount of time</td>
</tr>
<tr>
<td>(3-4 days)</td>
<td>(3-4 days)</td>
</tr>
<tr>
<td>Most or all of the time (5-7 days)</td>
<td>Most or all of the time (5-7 days)</td>
</tr>
<tr>
<td><strong>29</strong> I was happy.</td>
<td><strong>35</strong> I felt sad.</td>
</tr>
<tr>
<td>Rarely or none of the time (less than 1 day)</td>
<td>Rarely or none of the time (less than 1 day)</td>
</tr>
<tr>
<td>Some or a little of the time (1-2 days)</td>
<td>Some or a little of the time (1-2 days)</td>
</tr>
<tr>
<td>Occasionally or a moderate amount of time</td>
<td>Occasionally or a moderate amount of time</td>
</tr>
<tr>
<td>(3-4 days)</td>
<td>(3-4 days)</td>
</tr>
<tr>
<td>Most or all of the time (5-7 days)</td>
<td>Most or all of the time (5-7 days)</td>
</tr>
<tr>
<td><strong>30</strong> I talked less than usual.</td>
<td><strong>36</strong> I felt that people dislike me.</td>
</tr>
<tr>
<td>Rarely or none of the time (less than 1 day)</td>
<td>Rarely or none of the time (less than 1 day)</td>
</tr>
<tr>
<td>Some or a little of the time (1-2 days)</td>
<td>Some or a little of the time (1-2 days)</td>
</tr>
<tr>
<td>Occasionally or a moderate amount of time</td>
<td>Occasionally or a moderate amount of time</td>
</tr>
<tr>
<td>(3-4 days)</td>
<td>(3-4 days)</td>
</tr>
<tr>
<td>Most or all of the time (5-7 days)</td>
<td>Most or all of the time (5-7 days)</td>
</tr>
<tr>
<td><strong>31</strong> I felt lonely.</td>
<td><strong>37</strong> I could not get “going”.</td>
</tr>
<tr>
<td>Rarely or none of the time (less than 1 day)</td>
<td>Rarely or none of the time (less than 1 day)</td>
</tr>
<tr>
<td>Some or a little of the time (1-2 days)</td>
<td>Some or a little of the time (1-2 days)</td>
</tr>
<tr>
<td>Occasionally or a moderate amount of time</td>
<td>Occasionally or a moderate amount of time</td>
</tr>
<tr>
<td>(3-4 days)</td>
<td>(3-4 days)</td>
</tr>
<tr>
<td>Most or all of the time (5-7 days)</td>
<td>Most or all of the time (5-7 days)</td>
</tr>
</tbody>
</table>
Please read each statement below and tick the box that indicates how much the statement applied to you over the past week.

38 I was aware of dryness of my mouth.

- Did not apply to me at all [ ]
- Applied to me to some degree, or some of the time [ ]
- Applied to me to a considerable degree, or a good part of the time [ ]
- Applied to me very much, or most of the time [ ]

39 I experienced breathing difficulty (eg. excessively rapid breathing, breathlessness in the absence of physical exertion).

- Did not apply to me at all [ ]
- Applied to me to some degree, or some of the time [ ]
- Applied to me to a considerable degree, or a good part of the time [ ]
- Applied to me very much, or most of the time [ ]

40 I had a feeling of shakiness (eg. legs going to give way).

- Did not apply to me at all [ ]
- Applied to me to some degree, or some of the time [ ]
- Applied to me to a considerable degree, or a good part of the time [ ]
- Applied to me very much, or most of the time [ ]

41 I found myself in situations that made me so anxious I was most relieved when they ended.

- Did not apply to me at all [ ]
- Applied to me to some degree, or some of the time [ ]
- Applied to me to a considerable degree, or a good part of the time [ ]
- Applied to me very much, or most of the time [ ]

42 I had a feeling of faintness.

- Did not apply to me at all [ ]
- Applied to me to some degree, or some of the time [ ]
- Applied to me to a considerable degree, or a good part of the time [ ]
- Applied to me very much, or most of the time [ ]

43 I perspired noticeably (eg. hands sweaty) in the absence of high temperatures or physical exertion.

- Did not apply to me at all [ ]
- Applied to me to some degree, or some of the time [ ]
- Applied to me to a considerable degree, or a good part of the time [ ]
- Applied to me very much, or most of the time [ ]

44 I felt scared without any good reason.

- Did not apply to me at all [ ]
- Applied to me to some degree, or some of the time [ ]
- Applied to me to a considerable degree, or a good part of the time [ ]
- Applied to me very much, or most of the time [ ]

45 I had difficulty in swallowing.

- Did not apply to me at all [ ]
- Applied to me to some degree, or some of the time [ ]
- Applied to me to a considerable degree, or a good part of the time [ ]
- Applied to me very much, or most of the time [ ]

46 I was aware of the action of my heart in the absence of physical exertion (eg. sense of heart rate increase, heart missing a beat).

- Did not apply to me at all [ ]
- Applied to me to some degree, or some of the time [ ]
- Applied to me to a considerable degree, or a good part of the time [ ]
- Applied to me very much, or most of the time [ ]

47 I felt I was close to panic.

- Did not apply to me at all [ ]
- Applied to me to some degree, or some of the time [ ]
- Applied to me to a considerable degree, or a good part of the time [ ]
- Applied to me very much, or most of the time [ ]
48 I feared that I would be “thrown” by some trivial but unfamiliar task.

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not apply to me at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

49 I felt terrified.

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not apply to me at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

50 I was worried about situations in which I might panic and make a fool of myself.

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not apply to me at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

51 I experienced trembling (eg. in the hands).

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not apply to me at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

52 I’m no good.

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

53 I’m so disappointed in myself.

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

54 What’s wrong with me?

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

55 I’m worthless.

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

56 I feel so helpless.

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

57 Something has to change.

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

58 My future is bleak.

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Listed below are a variety of thoughts that pop into people’s heads. Please read each thought and indicate how frequently, if at all, the thought occurred to you over the last week.

52 I’m no good.
59 I can't finish anything.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>1</td>
</tr>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

The following questions ask how you feel about your quality of life, health or other areas of your life. Think about your life in the past 2 weeks.

60 How would you rate your quality of life?

<table>
<thead>
<tr>
<th>Quality</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very poor</td>
<td>1</td>
</tr>
<tr>
<td>Poor</td>
<td>2</td>
</tr>
<tr>
<td>Neither poor nor good</td>
<td>3</td>
</tr>
<tr>
<td>Good</td>
<td>4</td>
</tr>
<tr>
<td>Very good</td>
<td>5</td>
</tr>
</tbody>
</table>

61 How satisfied are you with your health?

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dissatisfied</td>
<td>1</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>2</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>3</td>
</tr>
<tr>
<td>Satisfied</td>
<td>4</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>5</td>
</tr>
</tbody>
</table>

62 Do you have enough energy for everyday life?

<table>
<thead>
<tr>
<th>Energy</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>1</td>
</tr>
<tr>
<td>A little</td>
<td>2</td>
</tr>
<tr>
<td>Moderately</td>
<td>3</td>
</tr>
<tr>
<td>Mostly</td>
<td>4</td>
</tr>
<tr>
<td>Completely</td>
<td>5</td>
</tr>
</tbody>
</table>

63 How satisfied are you with your ability to perform your daily activities?

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dissatisfied</td>
<td>1</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>2</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>3</td>
</tr>
<tr>
<td>Satisfied</td>
<td>4</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>5</td>
</tr>
</tbody>
</table>

64 How satisfied are you with yourself?

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dissatisfied</td>
<td>1</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>2</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>3</td>
</tr>
<tr>
<td>Satisfied</td>
<td>4</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>5</td>
</tr>
</tbody>
</table>

65 How satisfied are you with your personal relationships?

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dissatisfied</td>
<td>1</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>2</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>3</td>
</tr>
<tr>
<td>Satisfied</td>
<td>4</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>5</td>
</tr>
</tbody>
</table>

66 Have you enough money to meet your needs?

<table>
<thead>
<tr>
<th>Money</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>1</td>
</tr>
<tr>
<td>A little</td>
<td>2</td>
</tr>
<tr>
<td>Moderately</td>
<td>3</td>
</tr>
<tr>
<td>Mostly</td>
<td>4</td>
</tr>
<tr>
<td>Completely</td>
<td>5</td>
</tr>
</tbody>
</table>

67 How satisfied are you with the conditions of your living place?

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dissatisfied</td>
<td>1</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>2</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>3</td>
</tr>
<tr>
<td>Satisfied</td>
<td>4</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>5</td>
</tr>
</tbody>
</table>

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

68 Accomplished less than you would like?

<table>
<thead>
<tr>
<th>Response</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

69 Didn't do work or other activities as carefully as usual?

<table>
<thead>
<tr>
<th>Response</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>
Questions 70 to 74 are concerned with your alcohol consumption. Please tick the response that best fits your drinking.

70 How often do you have a drink containing alcohol?

- Never (go to Q75): 1
- Monthly or less: 2
- 2-4 times a month: 3
- 2-3 times a week: 4
- 4 or more times a week: 5

71 How many drinks containing alcohol do you have on a typical day when drinking?

- 1 or 2: 1
- 3 or 4: 2
- 5 or 6: 3
- 7 to 9: 4
- 10 or more: 5

72 How often during the last year have you found that you were not able to stop drinking once you had started?

- Never: 1
- Less than monthly: 2
- Monthly: 3
- Weekly: 4
- Daily or almost daily: 5

73 How often during the last year have you failed to do what was normally expected from you because of your drinking?

- Never: 1
- Less than monthly: 2
- Monthly: 3
- Weekly: 4
- Daily or almost daily: 5

74 Has a relative, friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

- No: 1
- Yes, but not in the last year: 2
- Yes, during the last year: 3

Questions 75 to 78 are related to how you have felt over the last few weeks.

75 Have you recently felt that life is not worth living?

- Not at all: 1
- No more than usual: 2
- Rather more than usual: 3
- Much more than usual: 4

76 Have you recently found yourself wishing you were dead and away from it all?

- Not at all: 1
- No more than usual: 2
- Rather more than usual: 3
- Much more than usual: 4

77 Have you recently thought of the possibility that you might do away with yourself?

- Definitely not: 1
- I don't think so: 2
- Has crossed my mind: 3
- Definitely have: 4

78 Have you recently found that the idea of taking your own life kept coming into your mind?

- Definitely not: 1
- I don't think so: 2
- Has crossed my mind: 3
- Definitely has: 4

The following two questions ask about your views about the usefulness of websites for depression.

79 I am confident that people could learn skills for preventing depression from a website.

- Strongly agree: 1
- Agree: 2
- Neither agree nor disagree: 3
- Disagree: 4
- Strongly disagree: 5
80 I am confident that a website could help people understand depression better.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following sets of questions are about things people might do to cope with depression.

This first section refers to different people (some professional, some not) who might help someone who has depression. We would like you to rate whether you think these people are likely to be helpful for someone with depression.

<table>
<thead>
<tr>
<th>Helpfulness</th>
<th>GPs</th>
<th>Counsellors and clinical psychologists</th>
<th>Psychiatrists</th>
<th>Family and friends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpful</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
</tr>
<tr>
<td>Neither helpful nor harmful</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
</tr>
<tr>
<td>Harmful</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
</tr>
<tr>
<td>Don't know</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
</tr>
</tbody>
</table>

This next list is about medical treatments. We would like you to rate whether you consider each of these treatments is likely to be helpful or not for someone who has depression.

<table>
<thead>
<tr>
<th>Helpfulness</th>
<th>Antidepressants</th>
<th>Electroconvulsive therapy</th>
<th>Oestrogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpful</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
</tr>
<tr>
<td>Neither helpful nor harmful</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
</tr>
<tr>
<td>Harmful</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
</tr>
<tr>
<td>Don't know</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
</tr>
</tbody>
</table>

This next list refers to psychological treatments people might use to help with depression. Please rate whether or not you think each treatment is likely to be helpful for someone with depression.

<table>
<thead>
<tr>
<th>Helpfulness</th>
<th>Cognitive Behaviour Therapy</th>
<th>Interpersonal Psychotherapy</th>
<th>Psychodynamic Psychotherapy</th>
<th>Counselling</th>
<th>Reading self-help books for depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpful</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
</tr>
<tr>
<td>Neither helpful nor harmful</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
</tr>
<tr>
<td>Harmful</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
</tr>
<tr>
<td>Don't know</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
</tr>
</tbody>
</table>

This next list refers to changes in lifestyle or alternative treatments some people might use in an effort to reduce depression. Please tick whether you think each would be helpful or not.

<table>
<thead>
<tr>
<th>Helpfulness</th>
<th>St John’s wort</th>
<th>Light therapy</th>
<th>Acupuncture</th>
<th>Exercise</th>
<th>Yoga</th>
<th>Avoiding caffeine</th>
<th>Eating chocolate</th>
<th>Taking fish oils</th>
<th>Meditation</th>
<th>Massage</th>
<th>Aromatherapy</th>
<th>Relaxation therapy</th>
<th>Dance and movement therapy</th>
<th>Listening to music</th>
<th>Being with pets</th>
<th>Doing more things you enjoy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpful</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
<td>[ ] 1</td>
</tr>
<tr>
<td>Neither helpful nor harmful</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
<td>[ ] 2</td>
</tr>
<tr>
<td>Harmful</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
<td>[ ] 3</td>
</tr>
<tr>
<td>Don't know</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
<td>[ ] 4</td>
</tr>
</tbody>
</table>
We would now like you to tell us which of the following treatments or activities (if any) you have used in the past 6 months to cope with depression.

<table>
<thead>
<tr>
<th>109</th>
<th>Avoiding sugar</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>110</th>
<th>Cutting out alcohol</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>111</th>
<th>Using alcohol</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>112</th>
<th>Vitamins</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>113</th>
<th>Painkillers</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>139</th>
<th>Listening to music</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>140</th>
<th>Being with pets</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>141</th>
<th>Doing more things you enjoy</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>142</th>
<th>Avoiding sugar</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>143</th>
<th>Cutting out alcohol</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>144</th>
<th>Using alcohol</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>145</th>
<th>Vitamins</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>146</th>
<th>Painkillers</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>147</th>
<th>Other (please specify)</th>
</tr>
</thead>
</table>

Questions 148 to 156 contain statements about depression. Please indicate how strongly you personally agree or disagree with each statement.

<table>
<thead>
<tr>
<th>148</th>
<th>People with depression could snap out of it if they wanted.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly agree</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>149</th>
<th>Depression is a sign of personal weakness.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly agree</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>150</th>
<th>Depression is not a real medical illness.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly agree</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>151</th>
<th>People with depression are dangerous.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly agree</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
152 It is best to avoid people with depression so that you don’t become depressed yourself.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>2</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>5</td>
</tr>
</tbody>
</table>

153 People with depression are unpredictable.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>2</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>5</td>
</tr>
</tbody>
</table>

154 If I had depression I would not tell anyone.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>2</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>5</td>
</tr>
</tbody>
</table>

155 I would not employ someone if I knew they had been depressed.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>2</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>5</td>
</tr>
</tbody>
</table>

156 I would not vote for a politician if I knew they had been depressed.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>2</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>5</td>
</tr>
</tbody>
</table>

157 Reckless and foolhardy behaviour is a common sign of depression.

| True | 1 |
| False | 2 |
| Don’t know | 3 |

158 Having several distinct personalities may be a sign of depression.

| True | 1 |
| False | 2 |
| Don’t know | 3 |

159 Clinical psychologists can prescribe antidepressants.

| True | 1 |
| False | 2 |
| Don’t know | 3 |

160 Moderate depression disrupts a person’s life as much as Multiple Sclerosis or deafness.

| True | 1 |
| False | 2 |
| Don’t know | 3 |

161 Many treatments for depression are more effective than antidepressants.

| True | 1 |
| False | 2 |
| Don’t know | 3 |

162 Counselling is as effective as Cognitive Behavioural Therapy for depression.

| True | 1 |
| False | 2 |
| Don’t know | 3 |

163 Cognitive Behavioural Therapy is as effective as antidepressants for mild to moderate depression.

| True | 1 |
| False | 2 |
| Don’t know | 3 |

164 Of all the alternative and lifestyle treatments for depression, vitamins are likely to be the most helpful.

| True | 1 |
| False | 2 |
| Don’t know | 3 |

The following questions are about your understanding of the symptoms of depression and the way it can be treated. Please tell me whether the statements below are true or false.
165 People with depression should stop taking antidepressants as soon as they feel better.

True 1
False 2
Don't know 3

166 Antidepressants are addictive.

True 1
False 2
Don't know 3

167 Antidepressant medications usually work straight away.

True 1
False 2
Don't know 3

Questions 168 to 177 ask about ways of dealing with depression and your understanding of factors that affect depression.

168 How much do you think depression can be helped by making changes to the way you think?

Not at all 1
A little bit 2
Somewhat 3
Quite a bit 4
A lot 5

169 How much do you know about Cognitive Behaviour Therapy?

Almost nothing 1
Not very much 2
Quite a lot 3
A lot 4

170 Cognitive Behaviour Therapy involves understanding how childhood experiences contribute to depression.

Yes 1
No 2
Don't know 3

171 Happy people have a positive view of the future.

Yes 1
No 2
Don't know 3

172 'Jumping to conclusions' involves thinking negatively about something without supporting evidence.

Yes 1
No 2
Don't know 3

173 The statement 'I'm a stupid idiot' is an example of labelling.

Yes 1
No 2
Don't know 3

174 I should automatically believe my thoughts because they will more often than not be accurate.

Yes 1
No 2
Don't know 3

175 The central concept of overcoming negative emotions is to challenge and contest warpy thinking.

Yes 1
No 2
Don't know 3

176 Progressive muscular relaxation and meditation are techniques that have nothing in common with each other.

Yes 1
No 2
Don't know 3

177 The survey method in Cognitive Behaviour Therapy involves surfing the net.

Yes 1
No 2
Don't know 3
178 How many times have you called Lifeline in the past month?

- None □ 1
- 1 time □ 2
- 2 times □ 3
- About 3-10 times □ 4
- About 11-19 times □ 5
- About 20 or more times □ 6

179 Please indicate which one of the following four activities would interest you most.

Visit websites designed to provide information and teach skills for preventing depression

□ 1

Visit websites designed to provide information and teach skills for preventing depression and receive a weekly phone call to talk about your progress.

□ 2

Receive a weekly phone call to talk about lifestyle and environmental factors that could increase your risk of depression

□ 3

Receive the website program described in 1 above to start in about 6 months time.

□ 4

Thank you very much for your participation
Appendix 12

Motivation to participate in a depression intervention survey
(Internet only and Internet plus tracking conditions)
Starting the website program

The website program you are about to start is designed to help you cope with problems like feeling depressed or stressed out. The program provides help as you work through it, as well as ‘homework’ exercises that suggest ways you can practice the new skills you’ve learned in your everyday life.

Before you start, we would like to ask you how you feel about the website program you are about to complete over the next 6 weeks. Please read each of the statements below and circle the number that indicates how much each statement applies to you.

1. I will do anything to get rid of my problems.
2. I expect to benefit more from the website program if I actively participate in it.
3. People have encouraged me to do a program like this.
4. I’m willing to put work or other activities aside to do the website program.
5. People around me will encourage me to put into practice what I have learned from the website program.
6. I think I’m capable of completing this website program.
7. I’m prepared to work on myself for a while.
8. My problems make me feel ashamed.
9. I’m willing to put aside other commitments to do the website program.
10. I think this website program offers what I need.
11. I am nervous about doing the website program.
12. If I do nothing about my complaints, they will become worse.
13. I made the right decision to take the opportunity to work on this website program.
14 I think it might be a nuisance having to carry out homework exercises as well.

15 I urgently need help to solve my problems.

16 My problems make me profoundly unhappy.

17 Actually, I decided to take the opportunity to do this website program at the insistence of other people.

18 I think I'm difficult to treat.

19 Due to my problems, I have become a nuisance to others.

20 I don't know if I'll be able to find enough time to carry out homework exercises as well.

21 Despite my problems, I manage to function well in daily life.

22 I am certain that I will practice the things I have learned in the website program in my everyday life.

23 I doubt that this website program will solve my problems.

24 I don't get much support from those around me.

25 I'm afraid this website program will take up too much time.

26 My problems will disappear on their own.

27 I'm afraid the website program will use up too much of my energy.

28 I expect that by completing this website program I will have fewer complaints.

29 I believe that this website program will help me get rid of my problems.

30 People around me will have difficulty coping with me putting into practice what I learn in the website program.
31 My complaints cause me great concern.

32 I don’t think that this website program is right for me.

33 I’m a little nervous about doing the website program.

34 People around me think it’s important that I do something about my complaints.

35 What others think of the website program is very important to me.

36 I’m not very optimistic about the outcome of the website program I’m about to begin.

37 I believe that I’m not suitable for doing the website program.

38 Most of those around me think it’s odd to seek help outside your family or circle of friends.

39 I always keep my commitments, no matter what.

40 I’m afraid I’ll find it hard to actively work on the website program.

41 I don’t think I will have trouble practicing the things I have learned in the website program.

42 People around me appreciate me doing this website program.

Office use only - Trial ID: [insert from excel]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42 Not at all applicable</td>
<td>Very applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 13

Post-intervention survey (Internet only condition)
13 I talked less than usual.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

14 I felt lonely.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

15 People were unfriendly.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

16 I enjoyed life.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

17 I had crying spells.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

18 I felt sad.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

19 I felt that people dislike me.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

20 I could not get "going".

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

21 I was aware of dryness of my mouth.

| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

22 I experienced breathing difficulty (eg. excessively rapid breathing, breathlessness in the absence of physical exertion).

| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

23 I had a feeling of shakiness (eg. legs going to give way).

<p>| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |</p>
<table>
<thead>
<tr>
<th>24</th>
<th>I found myself in situations that made me so anxious I was most relieved when they ended.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did not apply to me at all □ 1</td>
</tr>
<tr>
<td></td>
<td>Applied to me to some degree, or some of the time □ 2</td>
</tr>
<tr>
<td></td>
<td>Applied to me to a considerable degree, or a good part of the time □ 3</td>
</tr>
<tr>
<td></td>
<td>Applied to me very much, or most of the time □ 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>25</th>
<th>I had a feeling of faintness.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did not apply to me at all □ 1</td>
</tr>
<tr>
<td></td>
<td>Applied to me to some degree, or some of the time □ 2</td>
</tr>
<tr>
<td></td>
<td>Applied to me to a considerable degree, or a good part of the time □ 3</td>
</tr>
<tr>
<td></td>
<td>Applied to me very much, or most of the time □ 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>26</th>
<th>I perspired noticeably (e.g. hands sweaty) in the absence of high temperatures or physical exertion.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did not apply to me at all □ 1</td>
</tr>
<tr>
<td></td>
<td>Applied to me to some degree, or some of the time □ 2</td>
</tr>
<tr>
<td></td>
<td>Applied to me to a considerable degree, or a good part of the time □ 3</td>
</tr>
<tr>
<td></td>
<td>Applied to me very much, or most of the time □ 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>27</th>
<th>I felt scared without any good reason.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did not apply to me at all □ 1</td>
</tr>
<tr>
<td></td>
<td>Applied to me to some degree, or some of the time □ 2</td>
</tr>
<tr>
<td></td>
<td>Applied to me to a considerable degree, or a good part of the time □ 3</td>
</tr>
<tr>
<td></td>
<td>Applied to me very much, or most of the time □ 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>28</th>
<th>I had difficulty in swallowing.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did not apply to me at all □ 1</td>
</tr>
<tr>
<td></td>
<td>Applied to me to some degree, or some of the time □ 2</td>
</tr>
<tr>
<td></td>
<td>Applied to me to a considerable degree, or a good part of the time □ 3</td>
</tr>
<tr>
<td></td>
<td>Applied to me very much, or most of the time □ 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>29</th>
<th>I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did not apply to me at all □ 1</td>
</tr>
<tr>
<td></td>
<td>Applied to me to some degree, or some of the time □ 2</td>
</tr>
<tr>
<td></td>
<td>Applied to me to a considerable degree, or a good part of the time □ 3</td>
</tr>
<tr>
<td></td>
<td>Applied to me very much, or most of the time □ 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>30</th>
<th>I felt I was close to panic.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did not apply to me at all □ 1</td>
</tr>
<tr>
<td></td>
<td>Applied to me to some degree, or some of the time □ 2</td>
</tr>
<tr>
<td></td>
<td>Applied to me to a considerable degree, or a good part of the time □ 3</td>
</tr>
<tr>
<td></td>
<td>Applied to me very much, or most of the time □ 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>31</th>
<th>I feared that I would be “thrown” by some trivial but unfamiliar task.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did not apply to me at all □ 1</td>
</tr>
<tr>
<td></td>
<td>Applied to me to some degree, or some of the time □ 2</td>
</tr>
<tr>
<td></td>
<td>Applied to me to a considerable degree, or a good part of the time □ 3</td>
</tr>
<tr>
<td></td>
<td>Applied to me very much, or most of the time □ 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>32</th>
<th>I felt terrified.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did not apply to me at all □ 1</td>
</tr>
<tr>
<td></td>
<td>Applied to me to some degree, or some of the time □ 2</td>
</tr>
<tr>
<td></td>
<td>Applied to me to a considerable degree, or a good part of the time □ 3</td>
</tr>
<tr>
<td></td>
<td>Applied to me very much, or most of the time □ 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>33</th>
<th>I was worried about situations in which I might panic and make a fool of myself.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did not apply to me at all □ 1</td>
</tr>
<tr>
<td></td>
<td>Applied to me to some degree, or some of the time □ 2</td>
</tr>
<tr>
<td></td>
<td>Applied to me to a considerable degree, or a good part of the time □ 3</td>
</tr>
<tr>
<td></td>
<td>Applied to me very much, or most of the time □ 4</td>
</tr>
</tbody>
</table>
34 I experienced trembling (eg. in the hands).

Did not apply to me at all □ 1
Applied to me to some degree, or some of the time □ 2
Applied to me to a considerable degree, or a good part of the time □ 3
Applied to me very much, or most of the time □ 4

35 I'm no good.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

36 I'm so disappointed in myself.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

37 What's wrong with me?

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

38 I'm worthless.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

39 I feel so helpless.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

40 Something has to change.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

41 My future is bleak.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

42 I can't finish anything.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

The following questions ask how you feel about your quality of life, health or other areas of your life. Think about your life in the past 2 weeks.

43 How would you rate your quality of life?

Very poor □ 1
Poor □ 2
Neither poor nor good □ 3
Good □ 4
Very good □ 5

44 How satisfied are you with your health?

Very dissatisfied □ 1
Dissatisfied □ 2
Neither satisfied nor dissatisfied □ 3
Satisfied □ 4
Very satisfied □ 5

45 Do you have enough energy for everyday life?

Not at all □ 1
A little □ 2
Moderately □ 3
Mostly □ 4
Completely □ 5
46 How satisfied are you with your ability to perform your daily activities?

- Very dissatisfied [ ]
- Dissatisfied [ ]
- Neither satisfied nor dissatisfied [ ]
- Satisfied [ ]
- Very satisfied [ ]

47 How satisfied are you with yourself?

- Very dissatisfied [ ]
- Dissatisfied [ ]
- Neither satisfied nor dissatisfied [ ]
- Satisfied [ ]
- Very satisfied [ ]

48 How satisfied are you with your personal relationships?

- Very dissatisfied [ ]
- Dissatisfied [ ]
- Neither satisfied nor dissatisfied [ ]
- Satisfied [ ]
- Very satisfied [ ]

49 Have you enough money to meet your needs?

- Not at all [ ]
- A little [ ]
- Moderately [ ]
- Mostly [ ]
- Completely [ ]

50 How satisfied are you with the conditions of your living place?

- Very dissatisfied [ ]
- Dissatisfied [ ]
- Neither satisfied nor dissatisfied [ ]
- Satisfied [ ]
- Very satisfied [ ]

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

51 Accomplished less than you would like?

- Yes [ ]
- No [ ]

52 Didn't do work or other activities as carefully as usual?

- Yes [ ]
- No [ ]

Questions 53 to 57 are concerned with your alcohol consumption. Please tick the response that best fits your drinking.

53 How often do you have a drink containing alcohol?

- Never (go to 56) [ ]
- Monthly or less [ ]
- 2-4 times a month [ ]
- 2-3 times a week [ ]
- 4 or more times a week [ ]

54 How many drinks containing alcohol do you have on a typical day when drinking?

- 1 or 2 [ ]
- 3 or 4 [ ]
- 5 or 6 [ ]
- 7 to 9 [ ]
- 10 or more [ ]

55 How often during the last year have you found that you were not able to stop drinking once you had started?

- Never [ ]
- Less than monthly [ ]
- Monthly [ ]
- Weekly [ ]
- Daily or almost daily [ ]

56 How often during the last year have you failed to do what was normally expected from you because of your drinking?

- Never [ ]
- Less than monthly [ ]
- Monthly [ ]
- Weekly [ ]
- Daily or almost daily [ ]

57 Has a relative, friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

- No [ ]
- Yes, but not in the last year [ ]
- Yes, during the last year [ ]
Questions 58 to 61 are related to how you have felt over the last few weeks.

58 Have you recently felt that life is not worth living?
- Not at all 1
- No more than usual 2
- Rather more than usual 3
- Much more than usual 4

59 Have you recently found yourself wishing you were dead and away from it all?
- Not at all 1
- No more than usual 2
- Rather more than usual 3
- Much more than usual 4

60 Have you recently thought of the possibility that you might do away with yourself?
- Definitely not 1
- I don’t think so 2
- Has crossed my mind 3
- Definitely have 4

61 Have you recently found that the idea of taking your own life kept coming into your mind?
- Definitely not 1
- I don’t think so 2
- Has crossed my mind 3
- Definitely has 4

The following two questions ask about your views about the usefulness of websites for depression.

62 I am confident that people could learn skills for preventing depression from a website.
- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

63 I am confident that a website could help people understand depression better.
- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

The following sets of questions are about things people might do to cope with depression.

This first section refers to different people (some professional, some not) who might help someone who has depression. We would like you to rate whether you think these people are likely to be helpful for someone with depression.

64 GPs
- Helpful 1
- Neither helpful nor harmful 2
- Harmful 3
- Don’t know 4

65 Counsellors and clinical psychologists
- Helpful 1
- Neither helpful nor harmful 2
- Harmful 3
- Don’t know 4

66 Psychiatrists
- Helpful 1
- Neither helpful nor harmful 2
- Harmful 3
- Don’t know 4

67 Family and friends
- Helpful 1
- Neither helpful nor harmful 2
- Harmful 3
- Don’t know 4

This next list is about medical treatments. We would like you to rate whether you consider each of these treatments is likely to be helpful or not for someone who has depression.

68 Antidepressants
- Helpful 1
- Neither helpful nor harmful 2
- Harmful 3
- Don’t know 4

69 Electro-convulsive therapy
- Helpful 1
- Neither helpful nor harmful 2
- Harmful 3
- Don’t know 4

70 Oestrogen
- Helpful 1
- Neither helpful nor harmful 2
- Harmful 3
- Don’t know 4
This next list refers to **psychological treatments** people might use to help with depression. Please rate whether or not you think each treatment is likely to be **helpful** for someone with depression.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>Cognitive Behaviour Therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>72</td>
<td>Interpersonal Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>73</td>
<td>Psychodynamic Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>74</td>
<td>Counselling</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>75</td>
<td>Reading self-help books for depression</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

This next list refers to **changes in lifestyle or alternative treatments** some people might use in an effort to reduce depression. Please tick whether you think each would be **helpful** or not.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>St John’s wort</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>77</td>
<td>Light therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>78</td>
<td>Acupuncture</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>79</td>
<td>Exercise</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>80</td>
<td>Yoga</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>81</td>
<td>Avoiding caffeine</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>82</td>
<td>Eating chocolate</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>83</td>
<td>Taking fish oils</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>84</td>
<td>Meditation</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>85</td>
<td>Massage</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>86</td>
<td>Aromatherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>87</td>
<td>Relaxation therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>88</td>
<td>Dance and movement therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>89</td>
<td>Listening to music</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>90</td>
<td>Being with pets</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>91</td>
<td>Doing more things you enjoy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

We would now like you to tell us which of the following treatments or activities (if any) you have used in the **past 2 months** to cope with depression.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>Avoiding sugar</td>
</tr>
<tr>
<td>93</td>
<td>Cutting out alcohol</td>
</tr>
<tr>
<td>94</td>
<td>Using alcohol</td>
</tr>
<tr>
<td>95</td>
<td>Vitamins</td>
</tr>
<tr>
<td>96</td>
<td>Painkillers</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>GPs</td>
</tr>
<tr>
<td>98</td>
<td>Counsellors and clinical psychologists</td>
</tr>
<tr>
<td>99</td>
<td>Psychiatrists</td>
</tr>
<tr>
<td>100</td>
<td>Family and friends</td>
</tr>
<tr>
<td>101</td>
<td>Antidepressants</td>
</tr>
<tr>
<td>102</td>
<td>Electroconvulsive therapy</td>
</tr>
<tr>
<td>103</td>
<td>Oestrogen</td>
</tr>
<tr>
<td>104</td>
<td>Cognitive Behaviour Therapy</td>
</tr>
<tr>
<td>105</td>
<td>Interpersonal Psychotherapy</td>
</tr>
<tr>
<td>106</td>
<td>Psychodynamic Psychotherapy</td>
</tr>
<tr>
<td>107</td>
<td>Counselling</td>
</tr>
<tr>
<td>108</td>
<td>Reading self-help books for depression</td>
</tr>
<tr>
<td>109</td>
<td>St John’s wort</td>
</tr>
<tr>
<td>110</td>
<td>Light therapy</td>
</tr>
<tr>
<td>111</td>
<td>Acupuncture</td>
</tr>
<tr>
<td>112</td>
<td>Exercise</td>
</tr>
<tr>
<td>113</td>
<td>Yoga</td>
</tr>
<tr>
<td>114</td>
<td>Avoiding caffeine</td>
</tr>
<tr>
<td>115</td>
<td>Eating chocolate</td>
</tr>
<tr>
<td>116</td>
<td>Taking fish oils</td>
</tr>
<tr>
<td>117</td>
<td>Meditation</td>
</tr>
<tr>
<td>118</td>
<td>Massage</td>
</tr>
<tr>
<td>119</td>
<td>Aromatherapy</td>
</tr>
<tr>
<td>120</td>
<td>Relaxation therapy</td>
</tr>
<tr>
<td>121</td>
<td>Dance and movement therapy</td>
</tr>
<tr>
<td>122</td>
<td>Listening to music</td>
</tr>
<tr>
<td>123</td>
<td>Being with pets</td>
</tr>
</tbody>
</table>
124 Doing more things you enjoy
125 Avoiding sugar
126 Cutting out alcohol
127 Using alcohol
128 Vitamins
129 Painkillers
130 Other (please specify)

Questions 131 to 139 contain statements about depression. Please indicate how strongly you personally agree or disagree with each statement.

131 People with depression could snap out of it if they wanted.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

132 Depression is a sign of personal weakness.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

133 Depression is not a real medical illness.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

134 People with depression are dangerous.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

135 It is best to avoid people with depression so that you don’t become depressed yourself.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

136 People with depression are unpredictable.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

137 If I had depression I would not tell anyone.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

138 I would not employ someone if I knew they had been depressed.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

139 I would not vote for a politician if I knew they had been depressed.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

The following questions are about your understanding of the symptoms of depression and the way it can be treated. Please tell me whether the statements below are true or false.

140 Reckless and foolhardy behaviour is a common sign of depression.

True □ 1
False □ 2
Don’t know □ 3
141 Having several distinct personalities may be a sign of depression.  
| True | 1 | False | 2 | Don't know | 3 |

142 Clinical psychologists can prescribe antidepressants.  
| True | 1 | False | 2 | Don't know | 3 |

143 Moderate depression disrupts a person’s life as much as Multiple Sclerosis or deafness.  
| True | 1 | False | 2 | Don't know | 3 |

144 Many treatments for depression are more effective than antidepressants.  
| True | 1 | False | 2 | Don't know | 3 |

145 Counselling is as effective as Cognitive Behavioural Therapy for depression.  
| True | 1 | False | 2 | Don’t know | 3 |

146 Cognitive Behavioural Therapy is as effective as antidepressants for mild to moderate depression.  
| True | 1 | False | 2 | Don’t know | 3 |

147 Of all the alternative and lifestyle treatments for depression, vitamins are likely to be the most helpful.  
| True | 1 | False | 2 | Don’t know | 3 |

148 People with depression should stop taking antidepressants as soon as they feel better.  
| True | 1 | False | 2 | Don’t know | 3 |

149 Antidepressants are addictive.  
| True | 1 | False | 2 | Don’t know | 3 |

150 Antidepressant medications usually work straight away.  
| True | 1 | False | 2 | Don’t know | 3 |

Questions 151 to 160 ask about ways of dealing with depression and your understanding of factors that affect depression.

151 How much do you think depression can be helped by making changes to the way you think?  
| Not at all | 1 | A little bit | 2 | Somewhat | 3 | Quite a bit | 4 | A lot | 5 |

152 How much do you know about Cognitive Behaviour Therapy?  
| Almost nothing | 1 | Not very much | 2 | Quite a lot | 3 | A lot | 4 |

153 Cognitive Behaviour Therapy involves understanding how childhood experiences contribute to depression.  
| Yes | 1 | No | 2 | Don’t know | 3 |
154 Happy people have a positive view of the future.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

155 'Jumping to conclusions' involves thinking negatively about something without supporting evidence.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

156 The statement 'I'm a stupid idiot' is an example of labelling.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

157 I should automatically believe my thoughts because they will more often than not be accurate.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

158 The central concept of overcoming negative emotions is to challenge and contest warpy thinking.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

159 Progressive muscular relaxation and meditation are techniques that have nothing in common with each other.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

160 The survey method in cognitive behaviour therapy involves surfing the net.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

The following questions are about the websites that you visited over the last six weeks.

161 How much of the websites did you read?

None of it [ ] 1
Part of it [ ] 2
Most of it [ ] 3
Almost all of it [ ] 4

162 How easy were the websites to understand?

Very easy [ ] 1
Easy [ ] 2
Neither easy nor difficult [ ] 3
Difficult [ ] 4
Very difficult [ ] 5

163 Did you learn much from the websites?

A great deal [ ] 1
A fair bit [ ] 2
Not very much [ ] 3
Almost nothing [ ] 4

164 How useful were the websites?

Very useful [ ] 1
Useful [ ] 2
Not very useful [ ] 3
Not at all useful [ ] 4

165 Have you done anything differently because of the BluePages website?

Yes [ ] 1
No [ ] 2
Not sure [ ] 3

If yes, what have you done? (tick one or more of the following boxes):

Sought more information [ ] 1
Tried a self-help treatment [ ] 2
Sought help from a health professional [ ] 3
Given advice about depression to someone else [ ] 4
Other [ ] 5

166 Do you think you will use these websites in the future?

Yes [ ] 1
No [ ] 2
Not sure [ ] 3
167 Did the websites include what you wanted to know about depression and the options for treating it?

- Yes □ 1
- Mostly □ 2
- Only partly □ 3
- No □ 4

168 How much do you think the writers of the sites know about depression and options for treating it?

- A great deal □ 1
- A fair bit □ 2
- Not very much □ 3
- Almost nothing □ 4

169 Would you recommend these website to others?

- Yes, definitely □ 1
- Probably □ 2
- Probably not □ 3
- Definitely not □ 4

170 How satisfied are you with your experience as a participant in the ECCO project?

- Very satisfied □ 1
- Somewhat satisfied □ 2
- Neither satisfied nor unsatisfied □ 3
- Not satisfied □ 4
- Very unsatisfied □ 5

171 How many times have you called Lifeline in the past month?

- None □ 1
- 1 time □ 2
- 2 times □ 3
- About 3-10 times □ 4
- About 11-19 times □ 5
- About 20 or more times □ 6

Thank you very much for your participation.
Appendix 14

Post-intervention survey (Internet plus tracking condition)
ECCO Survey 2

Confidentiality
We would like to emphasise that this is a voluntary survey and the information you provide will be treated in the strictest confidence. Your survey will be stored with an ID number only. Your name will be stored separately from all other information that you have provided.

Thank you for taking part in this project.

Please return this survey as soon as possible in the reply paid envelope provided.
Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

1. I was bothered by things that usually don't bother me.
   - Rarely or none of the time (less than 1 day) [ ]
   - Some or a little of the time (1-2 days) [ ]
   - Occasionally or a moderate amount of time (3-4 days) [ ]
   - Most or all of the time (5-7 days) [ ]

2. I did not feel like eating; my appetite was poor.
   - Rarely or none of the time (less than 1 day) [ ]
   - Some or a little of the time (1-2 days) [ ]
   - Occasionally or a moderate amount of time (3-4 days) [ ]
   - Most or all of the time (5-7 days) [ ]

3. I felt that I could not shake off the blues even with the help from my family or friends.
   - Rarely or none of the time (less than 1 day) [ ]
   - Some or a little of the time (1-2 days) [ ]
   - Occasionally or a moderate amount of time (3-4 days) [ ]
   - Most or all of the time (5-7 days) [ ]

4. I felt that I was just as good as other people.
   - Rarely or none of the time (less than 1 day) [ ]
   - Some or a little of the time (1-2 days) [ ]
   - Occasionally or a moderate amount of time (3-4 days) [ ]
   - Most or all of the time (5-7 days) [ ]

5. I had trouble keeping my mind on what I was doing.
   - Rarely or none of the time (less than 1 day) [ ]
   - Some or a little of the time (1-2 days) [ ]
   - Occasionally or a moderate amount of time (3-4 days) [ ]
   - Most or all of the time (5-7 days) [ ]

6. I felt depressed.
   - Rarely or none of the time (less than 1 day) [ ]
   - Some or a little of the time (1-2 days) [ ]
   - Occasionally or a moderate amount of time (3-4 days) [ ]
   - Most or all of the time (5-7 days) [ ]

7. I felt that everything I did was an effort.
   - Rarely or none of the time (less than 1 day) [ ]
   - Some or a little of the time (1-2 days) [ ]
   - Occasionally or a moderate amount of time (3-4 days) [ ]
   - Most or all of the time (5-7 days) [ ]

8. I felt hopeful about the future.
   - Rarely or none of the time (less than 1 day) [ ]
   - Some or a little of the time (1-2 days) [ ]
   - Occasionally or a moderate amount of time (3-4 days) [ ]
   - Most or all of the time (5-7 days) [ ]

9. I thought my life had been a failure.
   - Rarely or none of the time (less than 1 day) [ ]
   - Some or a little of the time (1-2 days) [ ]
   - Occasionally or a moderate amount of time (3-4 days) [ ]
   - Most or all of the time (5-7 days) [ ]

10. I felt fearful.
    - Rarely or none of the time (less than 1 day) [ ]
    - Some or a little of the time (1-2 days) [ ]
    - Occasionally or a moderate amount of time (3-4 days) [ ]
    - Most or all of the time (5-7 days) [ ]

11. My sleep was restless.
    - Rarely or none of the time (less than 1 day) [ ]
    - Some or a little of the time (1-2 days) [ ]
    - Occasionally or a moderate amount of time (3-4 days) [ ]
    - Most or all of the time (5-7 days) [ ]

12. I was happy.
    - Rarely or none of the time (less than 1 day) [ ]
    - Some or a little of the time (1-2 days) [ ]
    - Occasionally or a moderate amount of time (3-4 days) [ ]
    - Most or all of the time (5-7 days) [ ]
<table>
<thead>
<tr>
<th>Question</th>
<th>Rarely or none of the time (less than 1 day)</th>
<th>Some or a little of the time (1-2 days)</th>
<th>Occasionally or a moderate amount of time</th>
<th>Most or all of the time (5-7 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 I talked less than usual.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>14 I felt lonely.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>15 People were unfriendly.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>16 I enjoyed life.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>17 I had crying spells.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>18 I felt sad.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>19 I felt that people dislike me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>20 I could not get “going”.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>21 I was aware of dryness of my mouth.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>22 I experienced breathing difficulty (eg. excessively rapid breathing, breathlessness in the absence of physical exertion).</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>23 I had a feeling of shakiness (eg. legs going to give way).</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Question</td>
<td>Response Options</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 24 I found myself in situations that made me so anxious I was most relieved when they ended. | Did not apply to me at all 1  
Applied to me to some degree, or some of the time 2  
Applied to me to a considerable degree, or a good part of the time 3  
Applied to me very much, or most of the time 4 |
| 25 I had a feeling of faintness.                                        | Did not apply to me at all 1  
Applied to me to some degree, or some of the time 2  
Applied to me to a considerable degree, or a good part of the time 3  
Applied to me very much, or most of the time 4 |
| 26 I perspired noticeably (eg. hands sweaty) in the absence of high temperatures or physical exertion. | Did not apply to me at all 1  
Applied to me to some degree, or some of the time 2  
Applied to me to a considerable degree, or a good part of the time 3  
Applied to me very much, or most of the time 4 |
| 27 I felt scared without any good reason.                               | Did not apply to me at all 1  
Applied to me to some degree, or some of the time 2  
Applied to me to a considerable degree, or a good part of the time 3  
Applied to me very much, or most of the time 4 |
| 28 I had difficulty in swallowing.                                     | Did not apply to me at all 1  
Applied to me to some degree, or some of the time 2  
Applied to me to a considerable degree, or a good part of the time 3  
Applied to me very much, or most of the time 4 |
| 29 I was aware of the action of my heart in the absence of physical exertion (eg. sense of heart rate increase, heart missing a beat). | Did not apply to me at all 1  
Applied to me to some degree, or some of the time 2  
Applied to me to a considerable degree, or a good part of the time 3  
Applied to me very much, or most of the time 4 |
| 30 I felt I was close to panic.                                         | Did not apply to me at all 1  
Applied to me to some degree, or some of the time 2  
Applied to me to a considerable degree, or a good part of the time 3  
Applied to me very much, or most of the time 4 |
| 31 I feared that I would be "thrown" by some trivial but unfamiliar task. | Did not apply to me at all 1  
Applied to me to some degree, or some of the time 2  
Applied to me to a considerable degree, or a good part of the time 3  
Applied to me very much, or most of the time 4 |
| 32 I felt terrified.                                                    | Did not apply to me at all 1  
Applied to me to some degree, or some of the time 2  
Applied to me to a considerable degree, or a good part of the time 3  
Applied to me very much, or most of the time 4 |
| 33 I was worried about situations in which I might panic and make a fool of myself. | Did not apply to me at all 1  
Applied to me to some degree, or some of the time 2  
Applied to me to a considerable degree, or a good part of the time 3  
Applied to me very much, or most of the time 4 |
34 I experienced trembling (e.g. in the hands).

Did not apply to me at all [ ]
Applied to me to some degree, or some of the time [ ]
Applied to me to a considerable degree, or a good part of the time [ ]
Applied to me very much, or most of the time [ ]

Listed below are a variety of thoughts that pop into people’s heads. Please read each thought and indicate how frequently, if at all, the thought occurred to you over the last week.

35 I’m no good.

Not at all [ ]
Sometimes [ ]
Moderately often [ ]
Often [ ]
All the time [ ]

36 I’m so disappointed in myself.

Not at all [ ]
Sometimes [ ]
Moderately often [ ]
Often [ ]
All the time [ ]

37 What’s wrong with me?

Not at all [ ]
Sometimes [ ]
Moderately often [ ]
Often [ ]
All the time [ ]

38 I’m worthless.

Not at all [ ]
Sometimes [ ]
Moderately often [ ]
Often [ ]
All the time [ ]

39 I feel so helpless.

Not at all [ ]
Sometimes [ ]
Moderately often [ ]
Often [ ]
All the time [ ]

40 Something has to change.

Not at all [ ]
Sometimes [ ]
Moderately often [ ]
Often [ ]
All the time [ ]

41 My future is bleak.

Not at all [ ]
Sometimes [ ]
Moderately often [ ]
Often [ ]
All the time [ ]

42 I can’t finish anything.

Not at all [ ]
Sometimes [ ]
Moderately often [ ]
Often [ ]
All the time [ ]

The following questions ask how you feel about your quality of life, health or other areas of your life. Think about your life in the past 2 weeks.

43 How would you rate your quality of life?

Very poor [ ]
Poor [ ]
Neither poor nor good [ ]
Good [ ]
Very good [ ]

44 How satisfied are you with your health?

Very dissatisfied [ ]
Dissatisfied [ ]
Neither satisfied nor dissatisfied [ ]
Satisfied [ ]
Very satisfied [ ]

45 Do you have enough energy for everyday life?

Not at all [ ]
A little [ ]
Moderately [ ]
Mostly [ ]
Completely [ ]
46 How satisfied are you with your ability to perform your daily activities?

- Very dissatisfied 1
- Dissatisfied 2
- Neither satisfied nor dissatisfied 3
- Satisfied 4
- Very satisfied 5

47 How satisfied are you with yourself?

- Very dissatisfied 1
- Dissatisfied 2
- Neither satisfied nor dissatisfied 3
- Satisfied 4
- Very satisfied 5

48 How satisfied are you with your personal relationships?

- Very dissatisfied 1
- Dissatisfied 2
- Neither satisfied nor dissatisfied 3
- Satisfied 4
- Very satisfied 5

49 Have you enough money to meet your needs?

- Not at all 1
- A little 2
- Moderately 3
- Mostly 4
- Completely 5

50 How satisfied are you with the conditions of your living place?

- Very dissatisfied 1
- Dissatisfied 2
- Neither satisfied nor dissatisfied 3
- Satisfied 4
- Very satisfied 5

52 Didn’t do work or other activities as carefully as usual?

- Yes 1
- No 2

Questions 53 to 57 are concerned with your alcohol consumption. Please tick the response that best fits your drinking.

53 How often do you have a drink containing alcohol?

- Never (go to Q58) 1
- Monthly or less 2
- 2-4 times a month 3
- 2-3 times a week 4
- 4 or more times a week 5

54 How many drinks containing alcohol do you have on a typical day when drinking?

- 1 or 2 1
- 3 or 4 2
- 5 or 6 3
- 7 to 9 4
- 10 or more 5

55 How often during the last year have you found that you were not able to stop drinking once you had started?

- Never 1
- Less than monthly 2
- Monthly 3
- Weekly 4
- Daily or almost daily 5

56 How often during the last year have you failed to do what was normally expected from you because of your drinking?

- Never 1
- Less than monthly 2
- Monthly 3
- Weekly 4
- Daily or almost daily 5

57 Has a relative, friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

- Yes, but not in the last year 2
- Yes, during the last year 3

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

51 Accomplished less than you would like?

- Yes 1
- No 2
Questions 58 to 61 are related to how you have felt over the last few weeks.

58 Have you recently felt that life is not worth living?

- Not at all 1
- No more than usual 2
- Rather more than usual 3
- Much more than usual 4

59 Have you recently found yourself wishing you were dead and away from it all?

- Not at all 1
- No more than usual 2
- Rather more than usual 3
- Much more than usual 4

60 Have you recently thought of the possibility that you might do away with yourself?

- Definitely not 1
- I don’t think so 2
- Has crossed my mind 3
- Definitely have 4

61 Have you recently found that the idea of taking your own life kept coming into your mind?

- Definitely not 1
- I don’t think so 2
- Has crossed my mind 3
- Definitely has 4

The following two questions ask about your views about the usefulness of websites for depression.

62 I am confident that people could learn skills for preventing depression from a website.

- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

63 I am confident that a website could help people understand depression better.

- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

The following sets of questions are about things people might do to cope with depression.

This first section refers to different people (some professional, some not) who might help someone who has depression. We would like you to rate whether you think these people are likely to be helpful for someone with depression.

64 GPs
65 Counsellors and clinical psychologists
66 Psychiatrists
67 Family and friends

This next list is about medical treatments. We would like you to rate whether you consider each of these treatments is likely to be helpful or not for someone who has depression.

68 Antidepressants
69 Electro-convulsive therapy
70 Oestrogen
This next list refers to **psychological treatments** people might use to help with depression. Please rate whether or not you think each treatment is likely to be **helpful** for someone with depression.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>Cognitive Behaviour Therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>72</td>
<td>Interpersonal Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>73</td>
<td>Psychodynamic Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>74</td>
<td>Counselling</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>75</td>
<td>Reading self-help books for depression</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

This next list refers to **changes in lifestyle or alternative treatments** some people might use in an effort to reduce depression. Please tick whether you think each would be **helpful** or not.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>St John’s Wort</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>77</td>
<td>Light therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>78</td>
<td>Acupuncture</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>79</td>
<td>Exercise</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>80</td>
<td>Yoga</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>81</td>
<td>Avoiding caffeine</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>82</td>
<td>Eating chocolate</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>83</td>
<td>Taking fish oils</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>84</td>
<td>Meditation</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>85</td>
<td>Massage</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>86</td>
<td>Aromatherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>87</td>
<td>Relaxation therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>88</td>
<td>Dance and movement therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>89</td>
<td>Listening to music</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>90</td>
<td>Being with pets</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>91</td>
<td>Doing more things you enjoy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

We would now like you to tell us which of the following treatments or activities (if any) **you have used in the past 2 months** to cope with depression.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>Avoiding sugar</td>
</tr>
<tr>
<td>93</td>
<td>Cutting out alcohol</td>
</tr>
<tr>
<td>94</td>
<td>Using alcohol</td>
</tr>
<tr>
<td>95</td>
<td>Vitamins</td>
</tr>
<tr>
<td>96</td>
<td>Painkillers</td>
</tr>
<tr>
<td>97</td>
<td>GPs</td>
</tr>
<tr>
<td>98</td>
<td>Counsellors and clinical psychologists</td>
</tr>
<tr>
<td>99</td>
<td>Psychiatrists</td>
</tr>
<tr>
<td>100</td>
<td>Family and friends</td>
</tr>
<tr>
<td>101</td>
<td>Antidepressants</td>
</tr>
<tr>
<td>102</td>
<td>Electroconvulsive therapy</td>
</tr>
<tr>
<td>103</td>
<td>Oestrogen</td>
</tr>
<tr>
<td>104</td>
<td>Cognitive Behaviour Therapy</td>
</tr>
<tr>
<td>105</td>
<td>Interpersonal Psychotherapy</td>
</tr>
<tr>
<td>106</td>
<td>Psychodynamic Psychotherapy</td>
</tr>
<tr>
<td>107</td>
<td>Counselling</td>
</tr>
<tr>
<td>108</td>
<td>Reading self-help books for depression</td>
</tr>
<tr>
<td>109</td>
<td>St John’s Wort</td>
</tr>
<tr>
<td>110</td>
<td>Light therapy</td>
</tr>
<tr>
<td>111</td>
<td>Acupuncture</td>
</tr>
<tr>
<td>112</td>
<td>Exercise</td>
</tr>
<tr>
<td>113</td>
<td>Yoga</td>
</tr>
<tr>
<td>114</td>
<td>Avoiding caffeine</td>
</tr>
<tr>
<td>115</td>
<td>Eating chocolate</td>
</tr>
<tr>
<td>116</td>
<td>Taking fish oils</td>
</tr>
<tr>
<td>117</td>
<td>Meditation</td>
</tr>
<tr>
<td>118</td>
<td>Massage</td>
</tr>
<tr>
<td>119</td>
<td>Aromatherapy</td>
</tr>
<tr>
<td>120</td>
<td>Relaxation therapy</td>
</tr>
<tr>
<td>121</td>
<td>Dance and movement therapy</td>
</tr>
<tr>
<td>122</td>
<td>Listening to music</td>
</tr>
<tr>
<td>123</td>
<td>Being with pets</td>
</tr>
<tr>
<td>124</td>
<td>Doing more things you enjoy</td>
</tr>
</tbody>
</table>
125  Avoiding sugar
126  Cutting out alcohol
127  Using alcohol
128  Vitamins
129  Painkillers
130  Other (please specify)

Questions 131 to 139 contain statements about depression. Please indicate how strongly you personally agree or disagree with each statement.

131 People with depression could snap out of it if they wanted.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

132 Depression is a sign of personal weakness.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

133 Depression is not a real medical illness.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

134 People with depression are dangerous.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

135 It is best to avoid people with depression so that you don’t become depressed yourself.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

136 People with depression are unpredictable.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

137 If I had depression I would not tell anyone.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

138 I would not employ someone if I knew they had been depressed.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

139 I would not vote for a politician if I knew they had been depressed.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The following questions are about your understanding of the symptoms of depression and the way it can be treated. Please tell me whether the statements below are true or false.

140 Reckless and foolhardy behaviour is a common sign of depression.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
141 Having several distinct personalities may be a sign of depression.

True 1
False 2
Don't know 3

142 Clinical psychologists can prescribe antidepressants.

True 1
False 2
Don't know 3

143 Moderate depression disrupts a person's life as much as Multiple Sclerosis or deafness.

True 1
False 2
Don't know 3

144 Many treatments for depression are more effective than antidepressants.

True 1
False 2
Don't know 3

145 Counselling is as effective as Cognitive Behavioural Therapy for depression.

True 1
False 2
Don't know 3

146 Cognitive Behavioural Therapy is as effective as antidepressants for mild to moderate depression.

True 1
False 2
Don't know 3

147 Of all the alternative and lifestyle treatments for depression, vitamins are likely to be the most helpful.

True 1
False 2
Don't know 3

148 People with depression should stop taking antidepressants as soon as they feel better.

True 1
False 2
Don't know 3

149 Antidepressants are addictive.

True 1
False 2
Don't know 3

150 Antidepressant medications usually work straight away.

True 1
False 2
Don't know 3

Questions 151 to 160 ask about ways of dealing with depression and your understanding of factors that affect depression.

151 How much do you think depression can be helped by making changes to the way you think?
Not at all 1
A little bit 2
Somewhat 3
Quite a bit 4
A lot 5

152 How much do you know about Cognitive Behaviour Therapy?
Almost nothing 1
Not very much 2
Quite a lot 3
A lot 4

153 Cognitive Behaviour Therapy involves understanding how childhood experiences contribute to depression.
Yes 1
No 2
Don't know 3
154 Happy people have a positive view of the future.

Yes □ 1  
No □ 2  
Don't know □ 3

155 'Jumping to conclusions' involves thinking negatively about something without supporting evidence.

Yes □ 1  
No □ 2  
Don't know □ 3

156 The statement 'I'm a stupid idiot' is an example of labelling.

Yes □ 1  
No □ 2  
Don't know □ 3

157 I should automatically believe my thoughts because they will more often than not be accurate.

Yes □ 1  
No □ 2  
Don't know □ 3

158 The central concept of overcoming negative emotions is to challenge and contest warpy thinking.

Yes □ 1  
No □ 2  
Don't know □ 3

159 Progressive muscular relaxation and meditation are techniques that have nothing in common with each other.

Yes □ 1  
No □ 2  
Don't know □ 3

160 The survey method in Cognitive Behaviour Therapy involves surfing the net.

Yes □ 1  
No □ 2  
Don't know □ 3

The following questions are about the websites that you visited over the last six weeks.

161 How much of the websites did you read?

None of it □ 1  
Part of it □ 2  
Most of it □ 3  
Almost all of it □ 4

162 How easy were the websites to understand?

Very easy □ 1  
Easy □ 2  
Neither easy nor difficult □ 3  
Difficult □ 4  
Very difficult □ 5

163 Did you learn much from the websites?

A great deal □ 1  
A fair bit □ 2  
Not very much □ 3  
Almost nothing □ 4

164 How useful were the websites?

Very useful □ 1  
Useful □ 2  
Not very useful □ 3  
Not at all useful □ 4

165 Have you done anything differently because of the BluePages website?

Yes □ 1  
No □ 2  
Not sure □ 3

If yes, what have you done? (tick one or more of the following boxes):

Sought more information □ 1  
Tried a self-help treatment □ 2  
Sought help from a health professional □ 3  
Given advice about depression to someone else □ 4  
Other □ 5

166 Do you think you will use these websites in the future?

Yes □ 1  
No □ 2  
Not sure □ 3
167 Did the websites include what you wanted to know about depression and the options for treating it?

Yes 1
Mostly 2
Only partly 3
No 4

168 How much do you think the writers of the sites know about depression and options for treating it?

A great deal 1
A fair bit 2
Not very much 3
Almost nothing 4

169 Would you recommend these website to others?

Yes, definitely 1
Probably 2
Probably not 3
Definitely not 4

170 How satisfied are you with your experience as a participant in the ECCO project?

Very satisfied 1
Somewhat satisfied 2
Neither satisfied nor unsatisfied 3
Not satisfied 4
Very unsatisfied 5

171 How would you describe your relationship with the ECCO support person?

Very positive 1
Positive 2
Neither positive nor negative 3
Negative 4
Very negative 5

172 How many times have you called Lifeline in the past month?

None 1
1 time 2
2 times 3
About 3-10 times 4
About 11-19 times 5
About 20 or more times 6

Thank you very much for your participation
Appendix 15

Post-intervention survey (Tracking only condition)
ECCO Survey 2

Confidentiality

We would like to emphasise that this is a voluntary survey and the information you provide will be treated in the strictest confidence. Your survey will be stored with an ID number only. Your name will be stored separately from all other information that you have provided.

Thank you for taking part in this project.

Please return this survey as soon as possible in the reply paid envelope provided.
Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

1 I was bothered by things that usually don't bother me.
   - Rarely or none of the time (less than 1 day) 1
   - Some or a little of the time (1-2 days) 2
   - Occasionally or a moderate amount of time (3-4 days) 3
   - Most or all of the time (5-7 days) 4

2 I did not feel like eating; my appetite was poor.
   - Rarely or none of the time (less than 1 day) 1
   - Some or a little of the time (1-2 days) 2
   - Occasionally or a moderate amount of time (3-4 days) 3
   - Most or all of the time (5-7 days) 4

3 I felt that I could not shake off the blues even with the help from my family or friends.
   - Rarely or none of the time (less than 1 day) 1
   - Some or a little of the time (1-2 days) 2
   - Occasionally or a moderate amount of time (3-4 days) 3
   - Most or all of the time (5-7 days) 4

4 I felt that I was just as good as other people.
   - Rarely or none of the time (less than 1 day) 1
   - Some or a little of the time (1-2 days) 2
   - Occasionally or a moderate amount of time (3-4 days) 3
   - Most or all of the time (5-7 days) 4

5 I had trouble keeping my mind on what I was doing.
   - Rarely or none of the time (less than 1 day) 1
   - Some or a little of the time (1-2 days) 2
   - Occasionally or a moderate amount of time (3-4 days) 3
   - Most or all of the time (5-7 days) 4

6 I felt depressed.
   - Rarely or none of the time (less than 1 day) 1
   - Some or a little of the time (1-2 days) 2
   - Occasionally or a moderate amount of time (3-4 days) 3
   - Most or all of the time (5-7 days) 4

7 I felt that everything I did was an effort.
   - Rarely or none of the time (less than 1 day) 1
   - Some or a little of the time (1-2 days) 2
   - Occasionally or a moderate amount of time (3-4 days) 3
   - Most or all of the time (5-7 days) 4

8 I felt hopeful about the future.
   - Rarely or none of the time (less than 1 day) 1
   - Some or a little of the time (1-2 days) 2
   - Occasionally or a moderate amount of time (3-4 days) 3
   - Most or all of the time (5-7 days) 4

9 I thought my life had been a failure.
   - Rarely or none of the time (less than 1 day) 1
   - Some or a little of the time (1-2 days) 2
   - Occasionally or a moderate amount of time (3-4 days) 3
   - Most or all of the time (5-7 days) 4

10 I felt fearful.
    - Rarely or none of the time (less than 1 day) 1
    - Some or a little of the time (1-2 days) 2
    - Occasionally or a moderate amount of time (3-4 days) 3
    - Most or all of the time (5-7 days) 4

11 My sleep was restless.
    - Rarely or none of the time (less than 1 day) 1
    - Some or a little of the time (1-2 days) 2
    - Occasionally or a moderate amount of time (3-4 days) 3
    - Most or all of the time (5-7 days) 4

12 I was happy.
    - Rarely or none of the time (less than 1 day) 1
    - Some or a little of the time (1-2 days) 2
    - Occasionally or a moderate amount of time (3-4 days) 3
    - Most or all of the time (5-7 days) 4
13 I talked less than usual.

- Rarely or none of the time (less than 1 day) □ 1
- Some or a little of the time (1-2 days) □ 2
- Occasionally or a moderate amount of time (3-4 days) □ 3
- Most or all of the time (5-7 days) □ 4

14 I felt lonely.

- Rarely or none of the time (less than 1 day) □ 1
- Some or a little of the time (1-2 days) □ 2
- Occasionally or a moderate amount of time (3-4 days) □ 3
- Most or all of the time (5-7 days) □ 4

15 People were unfriendly.

- Rarely or none of the time (less than 1 day) □ 1
- Some or a little of the time (1-2 days) □ 2
- Occasionally or a moderate amount of time (3-4 days) □ 3
- Most or all of the time (5-7 days) □ 4

16 I enjoyed life.

- Rarely or none of the time (less than 1 day) □ 1
- Some or a little of the time (1-2 days) □ 2
- Occasionally or a moderate amount of time (3-4 days) □ 3
- Most or all of the time (5-7 days) □ 4

17 I had crying spells.

- Rarely or none of the time (less than 1 day) □ 1
- Some or a little of the time (1-2 days) □ 2
- Occasionally or a moderate amount of time (3-4 days) □ 3
- Most or all of the time (5-7 days) □ 4

18 I felt sad.

- Rarely or none of the time (less than 1 day) □ 1
- Some or a little of the time (1-2 days) □ 2
- Occasionally or a moderate amount of time (3-4 days) □ 3
- Most or all of the time (5-7 days) □ 4

19 I felt that people dislike me.

- Rarely or none of the time (less than 1 day) □ 1
- Some or a little of the time (1-2 days) □ 2
- Occasionally or a moderate amount of time (3-4 days) □ 3
- Most or all of the time (5-7 days) □ 4

20 I could not get "going".

- Rarely or none of the time (less than 1 day) □ 1
- Some or a little of the time (1-2 days) □ 2
- Occasionally or a moderate amount of time (3-4 days) □ 3
- Most or all of the time (5-7 days) □ 4

21 I was aware of dryness of my mouth.

- Did not apply to me at all □ 1
- Applied to me to some degree, or some of the time □ 2
- Applied to me to a considerable degree, or a good part of the time □ 3
- Applied to me very much, or most of the time □ 4

22 I experienced breathing difficulty (eg. excessively rapid breathing, breathlessness in the absence of physical exertion).

- Did not apply to me at all □ 1
- Applied to me to some degree, or some of the time □ 2
- Applied to me to a considerable degree, or a good part of the time □ 3
- Applied to me very much, or most of the time □ 4

23 I had a feeling of shakiness (eg. legs going to give way).

- Did not apply to me at all □ 1
- Applied to me to some degree, or some of the time □ 2
- Applied to me to a considerable degree, or a good part of the time □ 3
- Applied to me very much, or most of the time □ 4

*Please read each statement below and tick the box that indicates how much the statement applied to you over the past week.*
24 I found myself in situations that made me so anxious I was most relieved when they ended.

Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

25 I had a feeling of faintness.

Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

26 I perspired noticeably (e.g. hands sweaty) in the absence of high temperatures or physical exertion.

Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

27 I felt scared without any good reason.

Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

28 I had difficulty in swallowing.

Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

29 I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat).

Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

30 I felt I was close to panic.

Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

31 I feared that I would be "thrown" by some trivial but unfamiliar task.

Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

32 I felt terrified.

Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

33 I was worried about situations in which I might panic and make a fool of myself.

Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4
34 I experienced trembling (eg. in the hands).

Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

Listed below are a variety of thoughts that pop into people's heads. Please read each thought and indicate how frequently, if at all, the thought occurred to you over the last week.

35 I'm no good.

Not at all 1
Sometimes 2
Moderately often 3
Often 4
All the time 5

36 I'm so disappointed in myself.

Not at all 1
Sometimes 2
Moderately often 3
Often 4
All the time 5

37 What's wrong with me?

Not at all 1
Sometimes 2
Moderately often 3
Often 4
All the time 5

38 I'm worthless.

Not at all 1
Sometimes 2
Moderately often 3
Often 4
All the time 5

39 I feel so helpless.

Not at all 1
Sometimes 2
Moderately often 3
Often 4
All the time 5

40 Something has to change.

Not at all 1
Sometimes 2
Moderately often 3
Often 4
All the time 5

41 My future is bleak.

Not at all 1
Sometimes 2
Moderately often 3
Often 4
All the time 5

42 I can't finish anything.

Not at all 1
Sometimes 2
Moderately often 3
Often 4
All the time 5

The following questions ask how you feel about your quality of life, health or other areas of your life. Think about your life in the past 2 weeks.

43 How would you rate your quality of life?

Very poor 1
Poor 2
Neither poor nor good 3
Good 4
Very good 5

44 How satisfied are you with your health?

Very dissatisfied 1
Dissatisfied 2
Neither satisfied nor dissatisfied 3
Satisfied 4
Very satisfied 5

45 Do you have enough energy for everyday life?

Not at all 1
A little 2
Moderately 3
Mostly 4
Completely 5
46 How satisfied are you with your ability to perform your daily activities?
- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

47 How satisfied are you with yourself?
- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

48 How satisfied are you with your personal relationships?
- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

49 Have you enough money to meet your needs?
- Not at all □ 1
- A little □ 2
- Moderately □ 3
- Mostly □ 4
- Completely □ 5

50 How satisfied are you with the conditions of your living place?
- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

51 Accomplished less than you would like?
- Yes □ 1
- No □ 2

52 Didn’t do work or other activities as carefully as usual?
- Yes □ 1
- No □ 2

Questions 53 to 57 are concerned with your alcohol consumption. Please tick the response that best fits your drinking.

53 How often do you have a drink containing alcohol?
- Never (go to Q58) □ 1
- Monthly or less □ 2
- 2-4 times a month □ 3
- 2-3 times a week □ 4
- 4 or more times a week □ 5

54 How many drinks containing alcohol do you have on a typical day when drinking?
- 1 or 2 □ 1
- 3 or 4 □ 2
- 5 or 6 □ 3
- 7 to 9 □ 4
- 10 or more □ 5

55 How often during the last year have you found that you were not able to stop drinking once you had started?
- Never □ 1
- Less than monthly □ 2
- Monthly □ 3
- Weekly □ 4
- Daily or almost daily □ 5

56 How often during the last year have you failed to do what was normally expected from you because of your drinking?
- Never □ 1
- Less than monthly □ 2
- Monthly □ 3
- Weekly □ 4
- Daily or almost daily □ 5

57 Has a relative, friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?
- No □ 1
- Yes, but not in the last year □ 2
- Yes, during the last year □ 3

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?
Questions 58 to 61 are related to how you have felt over the last few weeks.

58 Have you recently felt that life is not worth living?

- Not at all □ 1
- No more than usual □ 2
- Rather more than usual □ 3
- Much more than usual □ 4

59 Have you recently found yourself wishing you were dead and away from it all?

- Not at all □ 1
- No more than usual □ 2
- Rather more than usual □ 3
- Much more than usual □ 4

60 Have you recently thought of the possibility that you might do away with yourself?

- Definitely not □ 1
- I don't think so □ 2
- Has crossed my mind □ 3
- Definitely have □ 4

61 Have you recently found that the idea of taking your own life kept coming into your mind?

- Definitely not □ 1
- I don't think so □ 2
- Has crossed my mind □ 3
- Definitely has □ 4

The following two questions ask about your views about the usefulness of websites for depression.

62 I am confident that people could learn skills for preventing depression from a website.

- Strongly agree □ 1
- Agree □ 2
- Neither agree nor disagree □ 3
- Disagree □ 4
- Strongly disagree □ 5

63 I am confident that a website could help people understand depression better.

- Strongly agree □ 1
- Agree □ 2
- Neither agree nor disagree □ 3
- Disagree □ 4
- Strongly disagree □ 5

The following sets of questions are about things people might do to cope with depression.

This first section refers to different people (some professional, some not) who might help someone who has depression. We would like you to rate whether you think these people are likely to be helpful for someone with depression.

<table>
<thead>
<tr>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>64 GPs □ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>65 Counsellors and clinical psychologists □ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>66 Psychiatrists □ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>67 Family and friends □ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
</tbody>
</table>

This next list is about medical treatments. We would like you to rate whether you consider each of these treatments is likely to be helpful or not for someone who has depression.

<table>
<thead>
<tr>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>68 Antidepressants □ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>69 Electroconvulsive therapy □ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>70 Oestrogen □ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
</tbody>
</table>
This next list refers to **psychological treatments** people might use to help with depression. Please rate whether or not you think each treatment is likely to be **helpful** for someone with depression.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>Cognitive Behaviour Therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>72</td>
<td>Interpersonal Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>73</td>
<td>Psychodynamic Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>74</td>
<td>Counselling</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>75</td>
<td>Reading self-help books for depression</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

We would now like you to tell us which of the following treatments or activities (if any) you have used in the **past 2 months** to cope with depression.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>Avoiding sugar</td>
</tr>
<tr>
<td>93</td>
<td>Cutting out alcohol</td>
</tr>
<tr>
<td>94</td>
<td>Using alcohol</td>
</tr>
<tr>
<td>95</td>
<td>Vitamins</td>
</tr>
<tr>
<td>96</td>
<td>Painkillers</td>
</tr>
</tbody>
</table>

This next list refers to **changes in lifestyle or alternative treatments** some people might use in an effort to reduce depression. Please tick whether you think each would be **helpful** or not.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>St John’s wort</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>77</td>
<td>Light therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>78</td>
<td>Acupuncture</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>79</td>
<td>Exercise</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>80</td>
<td>Yoga</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>81</td>
<td>Avoiding caffeine</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>82</td>
<td>Eating chocolate</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>83</td>
<td>Taking fish oils</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>84</td>
<td>Meditation</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>85</td>
<td>Massage</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>86</td>
<td>Aromatherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>87</td>
<td>Relaxation therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>88</td>
<td>Dance and movement therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>89</td>
<td>Listening to music</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>90</td>
<td>Being with pets</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>91</td>
<td>Doing more things you enjoy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>97</td>
<td>GPs</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>Counsellors and clinical psychologists</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>Psychiatrists</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>Family and friends</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>Antidepressants</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>Electroconvulsive therapy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>Oestrogen</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>Cognitive Behaviour Therapy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>Interpersonal Psychotherapy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>Psychodynamic Psychotherapy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>107</td>
<td>Counselling</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>108</td>
<td>Reading self-help books for depression</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>109</td>
<td>St John’s wort</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>Light therapy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>111</td>
<td>Acupuncture</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>Exercise</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>113</td>
<td>Yoga</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>114</td>
<td>Avoiding caffeine</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>115</td>
<td>Eating chocolate</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>116</td>
<td>Taking fish oils</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>117</td>
<td>Meditation</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>118</td>
<td>Massage</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>119</td>
<td>Aromatherapy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>Relaxation therapy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>121</td>
<td>Dance and movement therapy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>122</td>
<td>Listening to music</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>Being with pets</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>Doing more things you enjoy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
125   □ 1   Avoiding sugar
126   □ 1   Cutting out alcohol
127   □ 1   Using alcohol
128   □ 1   Vitamins
129   □ 1   Painkillers
130   Other (please specify)

Questions 131 to 139 contain statements about depression. Please indicate how strongly you personally agree or disagree with each statement.

131 People with depression could snap out of it if they wanted.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

132 Depression is a sign of personal weakness.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

133 Depression is not a real medical illness.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

134 People with depression are dangerous.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

135 It is best to avoid people with depression so that you don't become depressed yourself.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

136 People with depression are unpredictable.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

137 If I had depression I would not tell anyone.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

138 I would not employ someone if I knew they had been depressed.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

139 I would not vote for a politician if I knew they had been depressed.

Strongly agree □ 1
Agree □ 2
Neither agree nor disagree □ 3
Disagree □ 4
Strongly disagree □ 5

The following questions are about your understanding of the symptoms of depression and the way it can be treated. Please tell me whether the statements below are true or false.

140 Reckless and foolhardy behaviour is a common sign of depression.

True □ 1
False □ 2
Don't know □ 3
<table>
<thead>
<tr>
<th>Question</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>141</strong></td>
<td>Having several distinct personalities may be a sign of depression.</td>
</tr>
<tr>
<td></td>
<td>True [ ] 1</td>
</tr>
<tr>
<td></td>
<td>False [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Don't know [ ] 3</td>
</tr>
<tr>
<td><strong>142</strong></td>
<td>Clinical psychologists can prescribe antidepressants.</td>
</tr>
<tr>
<td></td>
<td>True [ ] 1</td>
</tr>
<tr>
<td></td>
<td>False [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Don't know [ ] 3</td>
</tr>
<tr>
<td><strong>143</strong></td>
<td>Moderate depression disrupts a person's life as much as Multiple Sclerosis or deafness.</td>
</tr>
<tr>
<td></td>
<td>True [ ] 1</td>
</tr>
<tr>
<td></td>
<td>False [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Don't know [ ] 3</td>
</tr>
<tr>
<td><strong>144</strong></td>
<td>Many treatments for depression are more effective than antidepressants.</td>
</tr>
<tr>
<td></td>
<td>True [ ] 1</td>
</tr>
<tr>
<td></td>
<td>False [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Don't know [ ] 3</td>
</tr>
<tr>
<td><strong>145</strong></td>
<td>Counselling is as effective as Cognitive Behavioural Therapy for depression.</td>
</tr>
<tr>
<td></td>
<td>True [ ] 1</td>
</tr>
<tr>
<td></td>
<td>False [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Don't know [ ] 3</td>
</tr>
<tr>
<td><strong>146</strong></td>
<td>Cognitive Behavioural Therapy is as effective as antidepressants for mild to moderate depression.</td>
</tr>
<tr>
<td></td>
<td>True [ ] 1</td>
</tr>
<tr>
<td></td>
<td>False [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Don't know [ ] 3</td>
</tr>
<tr>
<td><strong>147</strong></td>
<td>Of all the alternative and lifestyle treatments for depression, vitamins are likely to be the most helpful.</td>
</tr>
<tr>
<td></td>
<td>True [ ] 1</td>
</tr>
<tr>
<td></td>
<td>False [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Don't know [ ] 3</td>
</tr>
<tr>
<td><strong>148</strong></td>
<td>People with depression should stop taking antidepressants as soon as they feel better.</td>
</tr>
<tr>
<td></td>
<td>True [ ] 1</td>
</tr>
<tr>
<td></td>
<td>False [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Don't know [ ] 3</td>
</tr>
<tr>
<td><strong>149</strong></td>
<td>Antidepressants are addictive.</td>
</tr>
<tr>
<td></td>
<td>True [ ] 1</td>
</tr>
<tr>
<td></td>
<td>False [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Don't know [ ] 3</td>
</tr>
<tr>
<td><strong>150</strong></td>
<td>Antidepressant medications usually work straight away.</td>
</tr>
<tr>
<td></td>
<td>True [ ] 1</td>
</tr>
<tr>
<td></td>
<td>False [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Don't know [ ] 3</td>
</tr>
</tbody>
</table>

**Questions 151 to 160 ask about ways of dealing with depression and your understanding of factors that affect depression.**

<table>
<thead>
<tr>
<th>Question</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>151</strong></td>
<td>How much do you think depression can be helped by making changes to the way you think?</td>
</tr>
<tr>
<td></td>
<td>Not at all [ ] 1</td>
</tr>
<tr>
<td></td>
<td>A little bit [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Somewhat [ ] 3</td>
</tr>
<tr>
<td></td>
<td>Quite a bit [ ] 4</td>
</tr>
<tr>
<td></td>
<td>A lot [ ] 5</td>
</tr>
<tr>
<td><strong>152</strong></td>
<td>How much do you know about Cognitive Behaviour Therapy?</td>
</tr>
<tr>
<td></td>
<td>Almost nothing [ ] 1</td>
</tr>
<tr>
<td></td>
<td>Not very much [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Quite a lot [ ] 3</td>
</tr>
<tr>
<td></td>
<td>A lot [ ] 4</td>
</tr>
<tr>
<td><strong>153</strong></td>
<td>Cognitive Behaviour Therapy involves understanding how childhood experiences contribute to depression.</td>
</tr>
<tr>
<td></td>
<td>Yes [ ] 1</td>
</tr>
<tr>
<td></td>
<td>No [ ] 2</td>
</tr>
<tr>
<td></td>
<td>Don't know [ ] 3</td>
</tr>
</tbody>
</table>
154 Happy people have a positive view of the future.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

155 'Jumping to conclusions' involves thinking negatively about something without supporting evidence.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

156 The statement 'I'm a stupid idiot' is an example of labelling.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

157 I should automatically believe my thoughts because they will more often than not be accurate.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

158 The central concept of overcoming negative emotions is to challenge and contest warpy thinking.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

159 Progressive muscular relaxation and meditation are techniques that have nothing in common with each other.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

160 The survey method in Cognitive Behaviour Therapy involves surfing the net.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Don’t know</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

161 How satisfied are you with your experience as a participant in the ECCO project?

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat satisfied</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither satisfied nor unsatisfied</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not satisfied</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very unsatisfied</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

162 How would you describe your relationship with the ECCO support person?

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very positive</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither positive nor negative</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very negative</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

163 How many times have you called Lifeline in the past month?

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 time</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 times</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>About 3-10 times</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>About 11-19 times</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>About 20 or more times</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you very much for your participation.
Appendix 16

Post-intervention survey (Control condition)
ECCO Survey 2

Confidentiality
We would like to emphasise that this is a voluntary survey and the information you provide will be treated in the strictest confidence. Your survey will be stored with an ID number only. Your name will be stored separately from all other information that you have provided.

Thank you for taking part in this project.

Please return this survey as soon as possible in the reply paid envelope provided.
Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

1 I was bothered by things that usually don't bother me.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

2 I did not feel like eating; my appetite was poor.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

3 I felt that I could not shake off the blues even with the help from my family or friends.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

4 I felt that I was just as good as other people.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

5 I had trouble keeping my mind on what I was doing.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

6 I felt depressed.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

7 I felt that everything I did was an effort.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

8 I felt hopeful about the future.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

9 I thought my life had been a failure.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

10 I felt fearful.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4

11 My sleep was restless.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4

12 I was happy.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4
13 I talked less than usual.
Rarely or none of the time (less than 1 day) 1
Some or a little of the time (1-2 days) 2
Occasionally or a moderate amount of time
(3-4 days) 3
Most or all of the time (5-7 days) 4

14 I felt lonely.
Rarely or none of the time (less than 1 day) 1
Some or a little of the time (1-2 days) 2
Occasionally or a moderate amount of time
(3-4 days) 3
Most or all of the time (5-7 days) 4

15 People were unfriendly.
Rarely or none of the time (less than 1 day) 1
Some or a little of the time (1-2 days) 2
Occasionally or a moderate amount of time
(3-4 days) 3
Most or all of the time (5-7 days) 4

16 I enjoyed life.
Rarely or none of the time (less than 1 day) 1
Some or a little of the time (1-2 days) 2
Occasionally or a moderate amount of time
(3-4 days) 3
Most or all of the time (5-7 days) 4

17 I had crying spells.
Rarely or none of the time (less than 1 day) 1
Some or a little of the time (1-2 days) 2
Occasionally or a moderate amount of time
(3-4 days) 3
Most or all of the time (5-7 days) 4

18 I felt sad.
Rarely or none of the time (less than 1 day) 1
Some or a little of the time (1-2 days) 2
Occasionally or a moderate amount of time
(3-4 days) 3
Most or all of the time (5-7 days) 4

19 I felt that people dislike me.
Rarely or none of the time (less than 1 day) 1
Some or a little of the time (1-2 days) 2
Occasionally or a moderate amount of time
(3-4 days) 3
Most or all of the time (5-7 days) 4

20 I could not get "going".
Rarely or none of the time (less than 1 day) 1
Some or a little of the time (1-2 days) 2
Occasionally or a moderate amount of time
(3-4 days) 3
Most or all of the time (5-7 days) 4

Please read each statement below and tick the box that indicates how much the statement applied to you over the past week.

21 I was aware of dryness of my mouth.
Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

22 I experienced breathing difficulty (eg. excessively rapid breathing, breathlessness in the absence of physical exertion).
Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4

23 I had a feeling of shakiness (eg. legs going to give way).
Did not apply to me at all 1
Applied to me to some degree, or some of the time 2
Applied to me to a considerable degree, or a good part of the time 3
Applied to me very much, or most of the time 4
<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 I found myself in situations that made me so anxious I was most relieved when they ended.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not apply to me at all</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 I had a feeling of faintness.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not apply to me at all</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26 I perspired noticeably (eg. hands sweaty) in the absence of high temperatures or physical exertion.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not apply to me at all</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 I felt scared without any good reason.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not apply to me at all</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28 I had difficulty in swallowing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not apply to me at all</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 I was aware of the action of my heart in the absence of physical exertion (eg. sense of heart rate increase, heart missing a beat).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not apply to me at all</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 I felt I was close to panic.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not apply to me at all</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31 I feared that I would be &quot;thrown&quot; by some trivial but unfamiliar task.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not apply to me at all</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32 I felt terrified.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not apply to me at all</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33 I was worried about situations in which I might panic and make a fool of myself.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not apply to me at all</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
34 I experienced trembling (e.g. in the hands).

Did not apply to me at all □ 1
Applied to me to some degree, or some of the time □ 2
Applied to me to a considerable degree, or a good part of the time □ 3
Applied to me very much, or most of the time □ 4

Listed below are a variety of thoughts that pop into people's heads. Please read each thought and indicate how frequently, if at all, the thought occurred to you over the last week.

35 I'm no good.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

36 I'm so disappointed in myself.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

37 What's wrong with me?

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

38 I'm worthless.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

39 I feel so helpless.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

40 Something has to change.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

41 My future is bleak.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

42 I can't finish anything.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

The following questions ask how you feel about your quality of life, health or other areas of your life. Think about your life in the past 2 weeks.

43 How would you rate your quality of life?

Very poor □ 1
Poor □ 2
Neither poor nor good □ 3
Good □ 4
Very good □ 5

44 How satisfied are you with your health?

Very dissatisfied □ 1
Dissatisfied □ 2
Neither satisfied nor dissatisfied □ 3
Satisfied □ 4
Very satisfied □ 5

45 Do you have enough energy for everyday life?

Not at all □ 1
A little □ 2
Moderately □ 3
Mostly □ 4
Completely □ 5
46 How satisfied are you with your ability to perform your daily activities?

- Very dissatisfied 1
- Dissatisfied 2
- Neither satisfied nor dissatisfied 3
- Satisfied 4
- Very satisfied 5

47 How satisfied are you with yourself?

- Very dissatisfied 1
- Dissatisfied 2
- Neither satisfied nor dissatisfied 3
- Satisfied 4
- Very satisfied 5

48 How satisfied are you with your personal relationships?

- Very dissatisfied 1
- Dissatisfied 2
- Neither satisfied nor dissatisfied 3
- Satisfied 4
- Very satisfied 5

49 Have you enough money to meet your needs?

- Not at all 1
- A little 2
- Moderately 3
- Mostly 4
- Completely 5

50 How satisfied are you with the conditions of your living place?

- Very dissatisfied 1
- Dissatisfied 2
- Neither satisfied nor dissatisfied 3
- Satisfied 4
- Very satisfied 5

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

51 Accomplished less than you would like?

- Yes 1
- No 2

52 Didn't do work or other activities as carefully as usual?

- Yes 1
- No 2

Questions 53 to 57 are concerned with your alcohol consumption. Please tick the response that best fits your drinking.

53 How often do you have a drink containing alcohol?

- Never (go to Q56) 1
- Monthly or less 2
- 2-4 times a month 3
- 2-3 times a week 4
- 4 or more times a week 5

54 How many drinks containing alcohol do you have on a typical day when drinking?

- 1 or 2 1
- 3 or 4 2
- 5 or 6 3
- 7 to 9 4
- 10 or more 5

55 How often during the last year have you found that you were not able to stop drinking once you had started?

- Never 1
- Less than monthly 2
- Monthly 3
- Weekly 4
- Daily or almost daily 5

56 How often during the last year have you failed to do what was normally expected from you because of your drinking?

- Never 1
- Less than monthly 2
- Monthly 3
- Weekly 4
- Daily or almost daily 5
57 Has a relative, friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

No 1
Yes, but not in the last year 2
Yes, during the last year 3

Questions 58 to 61 are related to how you have felt over the last few weeks.

58 Have you recently felt that life is not worth living?

Not at all 1
No more than usual 2
Rather more than usual 3
Much more than usual 4

59 Have you recently found yourself wishing you were dead and away from it all?

Not at all 1
No more than usual 2
Rather more than usual 3
Much more than usual 4

60 Have you recently thought of the possibility that you might do away with yourself?

Definitely not 1
I don’t think so 2
Has crossed my mind 3
Definitely have 4

61 Have you recently found that the idea of taking your own life kept coming into your mind?

Definitely not 1
I don’t think so 2
Has crossed my mind 3
Definitely has 4

The following two questions ask about your views about the usefulness of websites for depression.

62 I am confident that people could learn skills for preventing depression from a website.

Strongly agree 1
Agree 2
Neither agree nor disagree 3
Disagree 4
Strongly disagree 5

63 I am confident that a website could help people understand depression better.

Strongly agree 1
Agree 2
Neither agree nor disagree 3
Disagree 4
Strongly disagree 5

The following sets of questions are about things people might do to cope with depression.

This first section refers to different people (some professional, some not) who might help someone who has depression. We would like you to rate whether you think these people are likely to be helpful for someone with depression.

<table>
<thead>
<tr>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPs</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Counsellors and clinical psychologists</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Psychiatrists</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Family and friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

This next list is about medical treatments. We would like you to rate whether you consider each of these treatments is likely to be helpful or not for someone who has depression.

<table>
<thead>
<tr>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antidepressants</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Electro-convulsive therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Oestrogen</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
This next list refers to **psychological treatments** people might use to help with depression. Please rate whether or not you think each treatment is likely to be **helpful** for someone with depression.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>Cognitive Behaviour Therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>72</td>
<td>Interpersonal Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>73</td>
<td>Psychodynamic Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>74</td>
<td>Counselling</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>75</td>
<td>Reading self-help books for depression</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

This next list refers to **changes in lifestyle or alternative treatments** some people might use in an effort to reduce depression. Please tick whether you think each would be **helpful** or not.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>St John’s wort</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>77</td>
<td>Light therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>78</td>
<td>Acupuncture</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>79</td>
<td>Exercise</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>80</td>
<td>Yoga</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>81</td>
<td>Avoiding caffeine</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>82</td>
<td>Eating chocolate</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>83</td>
<td>Taking fish oils</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>84</td>
<td>Meditation</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>85</td>
<td>Massage</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>86</td>
<td>Aromatherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>87</td>
<td>Relaxation therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>88</td>
<td>Dance and movement therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>89</td>
<td>Listening to music</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>90</td>
<td>Being with pets</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>91</td>
<td>Doing more things you enjoy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>92</td>
<td>Avoiding sugar</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>93</td>
<td>Cutting out alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>94</td>
<td>Using alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>95</td>
<td>Vitamins</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>96</td>
<td>Painkillers</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

We would now like you to tell us which of the following treatments or activities (if any) you have used in the **past 2 months** to cope with depression.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>GPs</td>
</tr>
<tr>
<td>98</td>
<td>Counsellors and clinical psychologists</td>
</tr>
<tr>
<td>99</td>
<td>Psychiatrists</td>
</tr>
<tr>
<td>100</td>
<td>Family and friends</td>
</tr>
<tr>
<td>101</td>
<td>Antidepressants</td>
</tr>
<tr>
<td>102</td>
<td>Electroconvulsive therapy</td>
</tr>
<tr>
<td>103</td>
<td>Oestrogen</td>
</tr>
<tr>
<td>104</td>
<td>Cognitive Behaviour Therapy</td>
</tr>
<tr>
<td>105</td>
<td>Interpersonal Psychotherapy</td>
</tr>
<tr>
<td>106</td>
<td>Psychodynamic Psychotherapy</td>
</tr>
<tr>
<td>107</td>
<td>Counselling</td>
</tr>
<tr>
<td>108</td>
<td>Reading self-help books for depression</td>
</tr>
<tr>
<td>109</td>
<td>St John’s wort</td>
</tr>
<tr>
<td>110</td>
<td>Light therapy</td>
</tr>
<tr>
<td>111</td>
<td>Acupuncture</td>
</tr>
<tr>
<td>112</td>
<td>Exercise</td>
</tr>
<tr>
<td>113</td>
<td>Yoga</td>
</tr>
<tr>
<td>114</td>
<td>Avoiding caffeine</td>
</tr>
<tr>
<td>115</td>
<td>Eating chocolate</td>
</tr>
<tr>
<td>116</td>
<td>Taking fish oils</td>
</tr>
<tr>
<td>117</td>
<td>Meditation</td>
</tr>
<tr>
<td>118</td>
<td>Massage</td>
</tr>
<tr>
<td>119</td>
<td>Aromatherapy</td>
</tr>
<tr>
<td>120</td>
<td>Relaxation therapy</td>
</tr>
<tr>
<td>121</td>
<td>Dance and movement therapy</td>
</tr>
<tr>
<td>122</td>
<td>Listening to music</td>
</tr>
<tr>
<td>123</td>
<td>Being with pets</td>
</tr>
<tr>
<td>124</td>
<td>Doing more things you enjoy</td>
</tr>
<tr>
<td>125</td>
<td>Avoiding sugar</td>
</tr>
</tbody>
</table>
Questions 131 to 139 contain statements about depression. Please indicate how strongly you personally agree or disagree with each statement.

### 131 People with depression could snap out of it if they wanted.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### 132 Depression is a sign of personal weakness.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### 133 Depression is not a real medical illness.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### 134 People with depression are dangerous.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### 135 It is best to avoid people with depression so that you don’t become depressed yourself.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### 136 People with depression are unpredictable.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### 137 If I had depression I would not tell anyone.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### 138 I would not employ someone if I knew they had been depressed.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### 139 I would not vote for a politician if I knew they had been depressed.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

The following questions are about your understanding of the symptoms of depression and the way it can be treated. Please tell me whether the statements below are true or false.

### 140 Reckless and foolhardy behaviour is a common sign of depression.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
141 Having several distinct personalities may be a sign of depression.

- True [ ] 1
- False [ ] 2
- Don't know [ ] 3

142 Clinical psychologists can prescribe antidepressants.

- True [ ] 1
- False [ ] 2
- Don't know [ ] 3

143 Moderate depression disrupts a person's life as much as Multiple Sclerosis or deafness.

- True [ ] 1
- False [ ] 2
- Don't know [ ] 3

144 Many treatments for depression are more effective than antidepressants.

- True [ ] 1
- False [ ] 2
- Don't know [ ] 3

145 Counselling is as effective as Cognitive Behavioural Therapy for depression.

- True [ ] 1
- False [ ] 2
- Don't know [ ] 3

146 Cognitive Behavioural Therapy is as effective as antidepressants for mild to moderate depression.

- True [ ] 1
- False [ ] 2
- Don't know [ ] 3

147 Of all the alternative and lifestyle treatments for depression, vitamins are likely to be the most helpful.

- True [ ] 1
- False [ ] 2
- Don't know [ ] 3

148 People with depression should stop taking antidepressants as soon as they feel better.

- True [ ] 1
- False [ ] 2
- Don't know [ ] 3

149 Antidepressants are addictive.

- True [ ] 1
- False [ ] 2
- Don't know [ ] 3

150 Antidepressant medications usually work straight away.

- True [ ] 1
- False [ ] 2
- Don't know [ ] 3

Questions 151 to 160 ask about ways of dealing with depression and your understanding of factors that affect depression.

151 How much do you think depression can be helped by making changes to the way you think?

- Not at all [ ] 1
- A little bit [ ] 2
- Somewhat [ ] 3
- Quite a bit [ ] 4
- A lot [ ] 5

152 How much do you know about Cognitive Behaviour Therapy?

- Almost nothing [ ] 1
- Not very much [ ] 2
- Quite a lot [ ] 3
- A lot [ ] 4

153 Cognitive Behaviour Therapy involves understanding how childhood experiences contribute to depression.

- Yes [ ] 1
- No [ ] 2
- Don't know [ ] 3
154 Happy people have a positive view of the future.

Yes [ ] 1

No [ ] 2

Don't know [ ] 3

155 'Jumping to conclusions' involves thinking negatively about something without supporting evidence.

Yes [ ] 1

No [ ] 2

Don't know [ ] 3

156 The statement 'I'm a stupid idiot' is an example of labelling.

Yes [ ] 1

No [ ] 2

Don't know [ ] 3

157 I should automatically believe my thoughts because they will more often than not be accurate.

Yes [ ] 1

No [ ] 2

Don't know [ ] 3

158 The central concept of overcoming negative emotions is to challenge and contest warpy thinking.

Yes [ ] 1

No [ ] 2

Don't know [ ] 3

159 Progressive muscular relaxation and meditation are techniques that have nothing in common with each other.

Yes [ ] 1

No [ ] 2

Don't know [ ] 3

160 The survey method in Cognitive Behaviour Therapy involves surfing the net.

Yes [ ] 1

No [ ] 2

Don't know [ ] 3

161 How satisfied are you with your experience as a participant in the ECCO project?

Very satisfied [ ] 1

Somewhat satisfied [ ] 2

Neither satisfied nor unsatisfied [ ] 3

Not satisfied [ ] 4

Very unsatisfied [ ] 5

162 How many times have you called Lifeline in the past month?

None [ ] 1

1 time [ ] 2

2 times [ ] 3

About 3-10 times [ ] 4

About 11-19 times [ ] 5

About 20 or more times [ ] 6

Thank you very much for your participation.
### Appendix 17

Reasons for non-adherence to the intervention survey (Participants who completed less than 3 MoodGYM modules)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn't feel like it was helping</td>
<td></td>
</tr>
<tr>
<td>I found it difficult to stick to the program</td>
<td></td>
</tr>
<tr>
<td>I was busy and didn't have time to do it</td>
<td></td>
</tr>
<tr>
<td>I found it challenging to complete the exercises</td>
<td></td>
</tr>
<tr>
<td>I didn't find it engaging or motivating</td>
<td></td>
</tr>
<tr>
<td>I felt like I was wasting my time</td>
<td></td>
</tr>
<tr>
<td>I didn't see any benefit from it</td>
<td></td>
</tr>
<tr>
<td>I didn't enjoy it</td>
<td></td>
</tr>
<tr>
<td>I felt like I was doing too much</td>
<td></td>
</tr>
<tr>
<td>I didn't think it was worth my time</td>
<td></td>
</tr>
<tr>
<td>I didn't find it useful</td>
<td></td>
</tr>
<tr>
<td>I didn't think it would help me</td>
<td></td>
</tr>
<tr>
<td>I didn't want to participate anymore</td>
<td></td>
</tr>
</tbody>
</table>
Online program feedback

You may remember from the letter you received with your last survey that we said that we might follow up with you on your experience working with the website programs. We found that some people didn’t complete the website program entirely and we’re interested to find out what might have gotten in the way, so we can make the program easier for others to use in the future.

People stop using online programs for many reasons. Below is a list of different reasons and we would like you to indicate whether each reason played “no part”, “a little part” or “a major part” in why you stopped using the program.

<table>
<thead>
<tr>
<th>Technical issues</th>
<th>No Part</th>
<th>A Little Part</th>
<th>A Major Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I was having problems with my Internet connection. Specifically…</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) the connection was too slow</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(b) the connection kept dropping out</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) the program kept timing out</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) I lost my work/my answers wouldn’t save</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Other.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. My computer wasn’t working or was having problems</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. I didn’t have access to a computer or the Internet at home and found it</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>difficult to get access elsewhere (work, library, Internet café)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Other family members were usually using the computer</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Were there any other technical issues that I haven’t mentioned here?</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal issues</th>
<th>No Part</th>
<th>A Little Part</th>
<th>A Major Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. I just forgot</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. I didn’t have time in my schedule</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. I preferred not to go to the websites. Specifically…</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(a) I had other things I preferred to do.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Other.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I got sick/physical illness prevented me from doing the program</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. There wasn’t someone around to help me access the websites (e.g. log in)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
11. My family wasn’t supportive of me doing the program. | 0 | 1 | 2 |
12. Unexpected family commitments arose (visits, illness/caring responsibilities) | 0 | 1 | 2 |
13. Other family issues? | 0 | 1 | 2 |
14. I felt too depressed to work on the program. | 0 | 1 | 2 |
15. I wasn’t convinced that doing the program would help ease my problem. | 0 | 1 | 2 |
16. I don’t think that depression can really be cured so I didn’t think the program would make any difference. | 0 | 1 | 2 |
17. I didn’t feel comfortable divulging issues that are extremely personal/close to me. | 0 | 1 | 2 |
18. I didn’t think I deserved help/treatment. | 0 | 1 | 2 |
19. I thought I could get better on my own. | 0 | 1 | 2 |
20. I felt as though I had gotten what I wanted out of the program and no longer needed it. | 0 | 1 | 2 |

**General program issues**

<table>
<thead>
<tr>
<th>No Part</th>
<th>A Little Part</th>
<th>A Major Part</th>
</tr>
</thead>
</table>
21. The program was too hard to navigate. | 0 | 1 | 2 |
22. The program was going to take too long to do. | 0 | 1 | 2 |
23. There was too much text to read. | 0 | 1 | 2 |
24. The screen was hard to read (text was too small). | 0 | 1 | 2 |
25. The program was boring. | 0 | 1 | 2 |
26. The program was too repetitive. | 0 | 1 | 2 |
27. Other general issues with the program? | 0 | 1 | 2 |

**Specific program issues**

<table>
<thead>
<tr>
<th>No Part</th>
<th>A Little Part</th>
<th>A Major Part</th>
</tr>
</thead>
</table>
28. The concepts in MoodGYM were too hard and complicated. | 0 | 1 | 2 |
29. I’ve tried self-help programs before with little success, so I didn’t think it would really help. | 0 | 1 | 2 |
30. I didn’t feel that the ideas/examples in the program were relevant to me. | 0 | 1 | 2 |
31. The material in the program was too confronting and raised personal issues for me that I didn’t want to deal with.

<table>
<thead>
<tr>
<th>Engagement issues</th>
<th>No Part</th>
<th>A Little Part</th>
<th>A Major Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>32. I don’t like using the computer in general.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>33. I don’t like using the computer for help with personal problems.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>34. I don’t have very good computer (or Internet) skills.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>35. I preferred to get help from somewhere other than a computer. <em>Specifically…</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Antidepressants. Why?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Talking to someone (counselor, therapist). Why?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Self-help book. Why?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. Other? Why?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do you have any other comments you would like to make about the website program in this study?

__________________________________________________________________________

__________________________________________________________________________

Thank you so much for your time and useful suggestions.
Appendix 18

Six month follow-up questionnaire (Internet only and Internet plus tracking conditions)
ECCO Survey 3

Confidentiality

We would like to emphasise that this is a voluntary survey and the information you provide will be treated in the strictest confidence. Your survey will be stored with an ID number only. Your name will be stored separately from all other information that you have provided.

Thank you for taking part in this project.

Please return this survey as soon as possible in the reply paid envelope provided.
Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

1. I was bothered by things that usually don't bother me.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

2. I did not feel like eating; my appetite was poor.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

3. I felt that I could not shake off the blues even with the help from my family or friends.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

4. I felt that I was just as good as other people.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

5. I had trouble keeping my mind on what I was doing.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

6. I felt depressed.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

7. I felt that everything I did was an effort.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

8. I felt hopeful about the future.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

9. I thought my life had been a failure.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

10. I felt fearful.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4

11. My sleep was restless.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4

12. I was happy.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4
13 I talked less than usual.
- Rarely or none of the time (less than 1 day)  
- Some or a little of the time (1-2 days)  
- Occasionally or a moderate amount of time (3-4 days)  
- Most or all of the time (5-7 days)  

14 I felt lonely.
- Rarely or none of the time (less than 1 day)  
- Some or a little of the time (1-2 days)  
- Occasionally or a moderate amount of time (3-4 days)  
- Most or all of the time (5-7 days)  

15 People were unfriendly.
- Rarely or none of the time (less than 1 day)  
- Some or a little of the time (1-2 days)  
- Occasionally or a moderate amount of time (3-4 days)  
- Most or all of the time (5-7 days)  

16 I enjoyed life.
- Rarely or none of the time (less than 1 day)  
- Some or a little of the time (1-2 days)  
- Occasionally or a moderate amount of time (3-4 days)  
- Most or all of the time (5-7 days)  

17 I had crying spells.
- Rarely or none of the time (less than 1 day)  
- Some or a little of the time (1-2 days)  
- Occasionally or a moderate amount of time (3-4 days)  
- Most or all of the time (5-7 days)  

18 I felt sad.
- Rarely or none of the time (less than 1 day)  
- Some or a little of the time (1-2 days)  
- Occasionally or a moderate amount of time (3-4 days)  
- Most or all of the time (5-7 days)  

19 I felt that people dislike me.
- Rarely or none of the time (less than 1 day)  
- Some or a little of the time (1-2 days)  
- Occasionally or a moderate amount of time (3-4 days)  
- Most or all of the time (5-7 days)  

20 I could not get "going".
- Rarely or none of the time (less than 1 day)  
- Some or a little of the time (1-2 days)  
- Occasionally or a moderate amount of time (3-4 days)  
- Most or all of the time (5-7 days)  

Please read each statement below and tick the box that indicates how much the statement applied to you over the past week.

21 I was aware of dryness of my mouth.
- Did not apply to me at all  
- Applied to me to some degree, or some of the time  
- Applied to me to a considerable degree, or a good part of the time  
- Applied to me very much, or most of the time  

22 I experienced breathing difficulty (eg. excessively rapid breathing, breathlessness in the absence of physical exertion).
- Did not apply to me at all  
- Applied to me to some degree, or some of the time  
- Applied to me to a considerable degree, or a good part of the time  
- Applied to me very much, or most of the time  

23 I had a feeling of shakiness (eg. legs going to give way).
- Did not apply to me at all  
- Applied to me to some degree, or some of the time  
- Applied to me to a considerable degree, or a good part of the time  
- Applied to me very much, or most of the time  

I certify that the above statements are correct and complete.

Signature

Date
<table>
<thead>
<tr>
<th>Question</th>
<th>Did not apply to me at all</th>
<th>Applied to me to some degree, or some of the time</th>
<th>Applied to me to a considerable degree, or a good part of the time</th>
<th>Applied to me very much, or most of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>I found myself in situations that made me so anxious I was most relieved when they ended.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I had a feeling of faintness.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I perspired noticeably (e.g. hands sweaty) in the absence of high temperatures or physical exertion.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I felt scared without any good reason.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I had difficulty in swallowing.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I felt I was close to panic.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feared that I would be &quot;thrown&quot; by some trivial but unfamiliar task.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I felt terrified.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I was worried about situations in which I might panic and make a fool of myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
34 I experienced trembling (e.g. in the hands).

<table>
<thead>
<tr>
<th>Did not apply to me at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td>2</td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td>3</td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td>4</td>
</tr>
</tbody>
</table>

Listed below are a variety of thoughts that pop into people's heads. Please read each thought and indicate how frequently, if at all, the thought occurred to you **over the last week**.

35 I'm no good.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

36 I'm so disappointed in myself.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

37 What's wrong with me?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

38 I'm worthless.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

39 I feel so helpless.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

40 Something has to change.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

41 My future is bleak.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

42 I can't finish anything.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

The following questions ask how you feel about your quality of life, health or other areas of your life. Think about your life **in the past 2 weeks**.

43 How would you rate your quality of life?

<table>
<thead>
<tr>
<th>Very poor</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>2</td>
</tr>
<tr>
<td>Neither poor nor good</td>
<td>3</td>
</tr>
<tr>
<td>Good</td>
<td>4</td>
</tr>
<tr>
<td>Very good</td>
<td>5</td>
</tr>
</tbody>
</table>

44 How satisfied are you with your health?

<table>
<thead>
<tr>
<th>Very dissatisfied</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissatisfied</td>
<td>2</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>3</td>
</tr>
<tr>
<td>Satisfied</td>
<td>4</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>5</td>
</tr>
</tbody>
</table>

45 Do you have enough energy for everyday life?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A little</td>
<td>2</td>
</tr>
<tr>
<td>Moderately</td>
<td>3</td>
</tr>
<tr>
<td>Mostly</td>
<td>4</td>
</tr>
<tr>
<td>Completely</td>
<td>5</td>
</tr>
</tbody>
</table>
46 How satisfied are you with your ability to perform your daily activities?

- Very dissatisfied [ ]
- Dissatisfied [ ]
- Neither satisfied nor dissatisfied [ ]
- Satisfied [ ]
- Very satisfied [ ]

47 How satisfied are you with yourself?

- Very dissatisfied [ ]
- Dissatisfied [ ]
- Neither satisfied nor dissatisfied [ ]
- Satisfied [ ]
- Very satisfied [ ]

48 How satisfied are you with your personal relationships?

- Very dissatisfied [ ]
- Dissatisfied [ ]
- Neither satisfied nor dissatisfied [ ]
- Satisfied [ ]
- Very satisfied [ ]

49 Have you enough money to meet your needs?

- Not at all [ ]
- A little [ ]
- Moderately [ ]
- Mostly [ ]
- Completely [ ]

50 How satisfied are you with the conditions of your living place?

- Very dissatisfied [ ]
- Dissatisfied [ ]
- Neither satisfied nor dissatisfied [ ]
- Satisfied [ ]
- Very satisfied [ ]

52 Didn't do work or other activities as carefully as usual?

- Yes [ ]
- No [ ]

Questions 53 to 57 are concerned with your alcohol consumption. Please tick the response that best fits your drinking.

53 How often do you have a drink containing alcohol?

- Never (go to Q58) [ ]
- Monthly or less [ ]
- 2-4 times a month [ ]
- 2-3 times a week [ ]
- 4 or more times a week [ ]

54 How many drinks containing alcohol do you have on a typical day when drinking?

- 1 or 2 [ ]
- 3 or 4 [ ]
- 5 or 6 [ ]
- 7 to 9 [ ]
- 10 or more [ ]

55 How often during the last year have you found that you were not able to stop drinking once you had started?

- Never [ ]
- Less than monthly [ ]
- Monthly [ ]
- Weekly [ ]
- Daily or almost daily [ ]

56 How often during the last year have you failed to do what was normally expected from you because of your drinking?

- Never [ ]
- Less than monthly [ ]
- Monthly [ ]
- Weekly [ ]
- Daily or almost daily [ ]

57 Has a relative, friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

- Yes [ ]
- Yes, but not in the last year [ ]
- Yes, during the last year [ ]

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

51 Accomplished less than you would like?

- Yes [ ]
- No [ ]
Questions 58 to 61 are related to how you have felt over the last few weeks.

58 Have you recently felt that life is not worth living?
   - Not at all □ 1
   - No more than usual □ 2
   - Rather more than usual □ 3
   - Much more than usual □ 4

59 Have you recently found yourself wishing you were dead and away from it all?
   - Not at all □ 1
   - No more than usual □ 2
   - Rather more than usual □ 3
   - Much more than usual □ 4

60 Have you recently thought of the possibility that you might do away with yourself?
   - Definitely not □ 1
   - I don’t think so □ 2
   - Has crossed my mind □ 3
   - Definitely have □ 4

61 Have you recently found that the idea of taking your own life kept coming into your mind?
   - Definitely not □ 1
   - I don’t think so □ 2
   - Has crossed my mind □ 3
   - Definitely has □ 4

The following two questions ask about your views about the usefulness of websites for depression.

62 I am confident that people could learn skills for preventing depression from a website.
   - Strongly agree □ 1
   - Agree □ 2
   - Neither agree nor disagree □ 3
   - Disagree □ 4
   - Strongly disagree □ 5

63 I am confident that a website could help people understand depression better.
   - Strongly agree □ 1
   - Agree □ 2
   - Neither agree nor disagree □ 3
   - Disagree □ 4
   - Strongly disagree □ 5

The following sets of questions are about things people might do to cope with depression.

This first section refers to different people (some professional, some not) who might help someone who has depression. We would like you to rate whether you think these people are likely to be helpful for someone with depression.

<table>
<thead>
<tr>
<th>Professionals</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPs</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>Counsellors and clinical psychologists</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>Psychiatrists</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>Family and friends</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
</tbody>
</table>

This next list is about medical treatments. We would like you to rate whether you consider each of these treatments is likely to be helpful or not for someone who has depression.

<table>
<thead>
<tr>
<th>Treatments</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antidepressants</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>Electro-convulsive therapy</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>Oestrogen</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
</tbody>
</table>
This next list refers to **psychological treatments** people might use to help with depression. Please rate whether or not you think each treatment is likely to be helpful for someone with depression.

<table>
<thead>
<tr>
<th>No.</th>
<th>Treatment</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>Cognitive Behaviour Therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>72</td>
<td>Interpersonal Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>73</td>
<td>Psychodynamic Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>74</td>
<td>Counselling</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>75</td>
<td>Reading self-help books for depression</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

This next list refers to **changes in lifestyle or alternative treatments** some people might use in an effort to reduce depression. Please tick whether you think each would be helpful or not.

<table>
<thead>
<tr>
<th>No.</th>
<th>Treatment</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>St John’s wort</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>77</td>
<td>Light therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>78</td>
<td>Acupuncture</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>79</td>
<td>Exercise</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>80</td>
<td>Yoga</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>81</td>
<td>Avoiding caffeine</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>82</td>
<td>Eating chocolate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>83</td>
<td>Taking fish oils</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>84</td>
<td>Meditation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>85</td>
<td>Massage</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>86</td>
<td>Aromatherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>87</td>
<td>Relaxation therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>88</td>
<td>Dance and movement therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>89</td>
<td>Listening to music</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>90</td>
<td>Being with pets</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>91</td>
<td>Doing more things you enjoy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>92</td>
<td>Avoiding sugar</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

We would now like you to tell us which of the following treatments or activities (if any) you have used in the **past 2 months** to cope with depression.

<table>
<thead>
<tr>
<th>No.</th>
<th>Activity</th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>93</td>
<td>Cutting out alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>94</td>
<td>Using alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>95</td>
<td>Vitamins</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>96</td>
<td>Painkillers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>97</td>
<td>GPs</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>Counsellors and clinical psychologists</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>Psychiatrists</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>Family and friends</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>Antidepressants</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>Electroconvulsive therapy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>Oestrogen</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>Cognitive Behaviour Therapy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>Interpersonal Psychotherapy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>Psychodynamic Psychotherapy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>107</td>
<td>Counselling</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>108</td>
<td>Reading self-help books for depression</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>109</td>
<td>St John’s wort</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>Light therapy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>111</td>
<td>Acupuncture</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>Exercise</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>113</td>
<td>Yoga</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>114</td>
<td>Avoiding caffeine</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>115</td>
<td>Eating chocolate</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>116</td>
<td>Taking fish oils</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>117</td>
<td>Meditation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>118</td>
<td>Massage</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>119</td>
<td>Aromatherapy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>Relaxation therapy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>121</td>
<td>Dance and movement therapy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>122</td>
<td>Listening to music</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>Being with pets</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>Doing more things you enjoy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>125</td>
<td>Avoiding sugar</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Questions 131 to 139 contain statements about depression. Please indicate how strongly you personally agree or disagree with each statement.

131 People with depression could snap out of it if they wanted.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

132 Depression is a sign of personal weakness.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

133 Depression is not a real medical illness.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

134 People with depression are dangerous.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

135 It is best to avoid people with depression so that you don’t become depressed yourself.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

136 People with depression are unpredictable.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

137 If I had depression I would not tell anyone.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

138 I would not employ someone if I knew they had been depressed.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

139 I would not vote for a politician if I knew they had been depressed.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The following questions are about your understanding of the symptoms of depression and the way it can be treated. Please tell me whether the statements below are true or false.

140 Reckless and foolhardy behaviour is a common sign of depression.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
141 Having several distinct personalities may be a sign of depression.

True [ ]
False [ ]
Don't know [ ]

142 Clinical psychologists can prescribe antidepressants.

True [ ]
False [ ]
Don't know [ ]

143 Moderate depression disrupts a person's life as much as Multiple Sclerosis or deafness.

True [ ]
False [ ]
Don't know [ ]

144 Many treatments for depression are more effective than antidepressants.

True [ ]
False [ ]
Don't know [ ]

145 Counselling is as effective as Cognitive Behavioural Therapy for depression.

True [ ]
False [ ]
Don't know [ ]

146 Cognitive Behavioural Therapy is as effective as antidepressants for mild to moderate depression.

True [ ]
False [ ]
Don't know [ ]

147 Of all the alternative and lifestyle treatments for depression, vitamins are likely to be the most helpful.

True [ ]
False [ ]
Don't know [ ]

148 People with depression should stop taking antidepressants as soon as they feel better.

True [ ]
False [ ]
Don't know [ ]

149 Antidepressants are addictive.

True [ ]
False [ ]
Don't know [ ]

150 Antidepressant medications usually work straight away.

True [ ]
False [ ]
Don't know [ ]

Questions 151 to 160 ask about ways of dealing with depression and your understanding of factors that affect depression.

151 How much do you think depression can be helped by making changes to the way you think?

Not at all [ ]
A little bit [ ]
Somewhat [ ]
Quite a bit [ ]
A lot [ ]

152 How much do you know about Cognitive Behaviour Therapy?

Almost nothing [ ]
Not very much [ ]
Quite a lot [ ]
A lot [ ]

153 Cognitive Behaviour Therapy involves understanding how childhood experiences contribute to depression.

Yes [ ]
No [ ]
Don't know [ ]
154 Happy people have a positive view of the future.

Yes □ 1
No □ 2
Don't know □ 3

155 'Jumping to conclusions' involves thinking negatively about something without supporting evidence.

Yes □ 1
No □ 2
Don't know □ 3

156 The statement 'I'm a stupid idiot' is an example of labelling.

Yes □ 1
No □ 2
Don't know □ 3

157 I should automatically believe my thoughts because they will more often than not be accurate.

Yes □ 1
No □ 2
Don't know □ 3

158 The central concept of overcoming negative emotions is to challenge and contest warpy thinking.

Yes □ 1
No □ 2
Don't know □ 3

159 Progressive muscular relaxation and meditation are techniques that have nothing in common with each other.

Yes □ 1
No □ 2
Don't know □ 3

160 The survey method in Cognitive Behaviour Therapy involves surfing the net.

Yes □ 1
No □ 2
Don't know □ 3

The following questions are about the websites that you visited during the project.

161 Have you done anything differently because of the BluePages website?

Yes □ 1
No □ 2
Not sure □ 3

If yes, what have you done? (tick one or more of the following boxes):

- Sought more information □ 1
- Tried a self-help treatment □ 2
- Sought help from a health professional □ 3
- Given advice about depression to someone else □ 4
- Other □ 5

162 Have you been back to the sites since you finished the project?

Yes □ 1
No □ 2

163 Do you think you will use the websites in the future?

Yes □ 1
No □ 2
Not sure □ 3

164 Have you recommended the websites to others?

Yes □ 1
No □ 2

165 How many times have you called Lifeline in the past month?

None □ 1
1 time □ 2
2 times □ 3
About 3-10 times □ 4
About 11-19 times □ 5
About 20 or more times □ 6

Thank you very much for your participation
Appendix 19

Six month follow-up questionnaire (Tracking only and Control conditions)
ECCO Survey 3

Confidentiality

We would like to emphasise that this is a voluntary survey and the information you provide will be treated in the strictest confidence. Your survey will be stored with an ID number only. Your name will be stored separately from all other information that you have provided.

Thank you for taking part in this project.

Please return this survey as soon as possible in the reply paid envelope provided.
Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

1. I was bothered by things that usually don’t bother me.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

2. I did not feel like eating; my appetite was poor.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

3. I felt that I could not shake off the blues even with the help from my family or friends.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

4. I felt that I was just as good as other people.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

5. I had trouble keeping my mind on what I was doing.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

6. I felt depressed.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

7. I felt that everything I did was an effort.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

8. I felt hopeful about the future.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

9. I thought my life had been a failure.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

10. I felt fearful.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4

11. My sleep was restless.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4

12. I was happy.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4
13 I talked less than usual.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

14 I felt lonely.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

15 People were unfriendly.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

16 I enjoyed life.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

17 I had crying spells.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

18 I felt sad.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

19 I felt that people dislike me.

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

20 I could not get "going".

| Rarely or none of the time (less than 1 day) | 1 |
| Some or a little of the time (1-2 days) | 2 |
| Occasionally or a moderate amount of time (3-4 days) | 3 |
| Most or all of the time (5-7 days) | 4 |

*Please read each statement below and tick the box that indicates how much the statement applied to you over the past week.*

21 I was aware of dryness of my mouth.

| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

22 I experienced breathing difficulty (eg. excessively rapid breathing, breathlessness in the absence of physical exertion).

| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

23 I had a feeling of shakiness (eg. legs going to give way).

| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |
24 I found myself in situations that made me so anxious I was most relieved when they ended.

| Did not apply to me at all | 1 |
| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

25 I had a feeling of faintness.

| Did not apply to me at all | 1 |
| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

26 I perspired noticeably (eg. hands sweaty) in the absence of high temperatures or physical exertion.

| Did not apply to me at all | 1 |
| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

27 I felt scared without any good reason.

| Did not apply to me at all | 1 |
| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

28 I had difficulty in swallowing.

| Did not apply to me at all | 1 |
| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

29 I was aware of the action of my heart in the absence of physical exertion (eg. sense of heart rate increase, heart missing a beat).

| Did not apply to me at all | 1 |
| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

30 I felt I was close to panic.

| Did not apply to me at all | 1 |
| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

31 I feared that I would be "thrown" by some trivial but unfamiliar task.

| Did not apply to me at all | 1 |
| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

32 I felt terrified.

| Did not apply to me at all | 1 |
| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |

33 I was worried about situations in which I might panic and make a fool of myself.

| Did not apply to me at all | 1 |
| Did not apply to me at all | 1 |
| Applied to me to some degree, or some of the time | 2 |
| Applied to me to a considerable degree, or a good part of the time | 3 |
| Applied to me very much, or most of the time | 4 |
34 I experienced trembling (eg. in the hands).

Did not apply to me at all □ 1
Applied to me to some degree, or some of the time □ 2
Applied to me to a considerable degree, or a good part of the time □ 3
Applied to me very much, or most of the time □ 4

Listed below are a variety of thoughts that pop into people’s heads. Please read each thought and indicate how frequently, if at all, the thought occurred to you over the last week.

35 I’m no good.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

36 I’m so disappointed in myself.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

37 What’s wrong with me?

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

38 I’m worthless.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

39 I feel so helpless.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

40 Something has to change.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

41 My future is bleak.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

42 I can’t finish anything.

Not at all □ 1
Sometimes □ 2
Moderately often □ 3
Often □ 4
All the time □ 5

The following questions ask how you feel about your quality of life, health or other areas of your life. Think about your life in the past 2 weeks.

43 How would you rate your quality of life?

Very poor □ 1
Poor □ 2
Neither poor nor good □ 3
Good □ 4
Very good □ 5

44 How satisfied are you with your health?

Very dissatisfied □ 1
Dissatisfied □ 2
Neither satisfied nor dissatisfied □ 3
Satisfied □ 4
Very satisfied □ 5

45 Do you have enough energy for everyday life?

Not at all □ 1
A little □ 2
Moderately □ 3
Mostly □ 4
Completely □ 5
46 How satisfied are you with your ability to perform your daily activities?

- Very dissatisfied [ ] 1
- Dissatisfied [ ] 2
- Neither satisfied nor dissatisfied [ ] 3
- Satisfied [ ] 4
- Very satisfied [ ] 5

47 How satisfied are you with yourself?

- Very dissatisfied [ ] 1
- Dissatisfied [ ] 2
- Neither satisfied nor dissatisfied [ ] 3
- Satisfied [ ] 4
- Very satisfied [ ] 5

48 How satisfied are you with your personal relationships?

- Very dissatisfied [ ] 1
- Dissatisfied [ ] 2
- Neither satisfied nor dissatisfied [ ] 3
- Satisfied [ ] 4
- Very satisfied [ ] 5

49 Have you enough money to meet your needs?

- Not at all [ ] 1
- A little [ ] 2
- Moderately [ ] 3
- Mostly [ ] 4
- Completely [ ] 5

50 How satisfied are you with the conditions of your living place?

- Very dissatisfied [ ] 1
- Dissatisfied [ ] 2
- Neither satisfied nor dissatisfied [ ] 3
- Satisfied [ ] 4
- Very satisfied [ ] 5

52 Didn't do work or other activities as carefully as usual?

- Yes [ ] 1
- No [ ] 2

Questions 53 to 57 are concerned with your alcohol consumption. Please tick the response that best fits your drinking.

53 How often do you have a drink containing alcohol?

- Never (go to Q55) [ ] 1
- Monthly or less [ ] 2
- 2-4 times a month [ ] 3
- 2-3 times a week [ ] 4
- 4 or more times a week [ ] 5

54 How many drinks containing alcohol do you have on a typical day when drinking?

- 1 or 2 [ ] 1
- 3 or 4 [ ] 2
- 5 or 6 [ ] 3
- 7 to 9 [ ] 4
- 10 or more [ ] 5

55 How often during the last year have you found that you were not able to stop drinking once you had started?

- Never [ ] 1
- Less than monthly [ ] 2
- Monthly [ ] 3
- Weekly [ ] 4
- Daily or almost daily [ ] 5

56 How often during the last year have you failed to do what was normally expected from you because of your drinking?

- Never [ ] 1
- Less than monthly [ ] 2
- Monthly [ ] 3
- Weekly [ ] 4
- Daily or almost daily [ ] 5

57 Has a relative, friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

- No [ ] 1
- Yes, but not in the last year [ ] 2
- Yes, during the last year [ ] 3
Questions 58 to 61 are related to how you have felt over the last few weeks.

58 Have you recently felt that life is not worth living?
   - Not at all [ ]
   - No more than usual [ ]
   - Rather more than usual [ ]
   - Much more than usual [ ]

59 Have you recently found yourself wishing you were dead and away from it all?
   - Not at all [ ]
   - No more than usual [ ]
   - Rather more than usual [ ]
   - Much more than usual [ ]

60 Have you recently thought of the possibility that you might do away with yourself?
   - Definitely not [ ]
   - I don't think so [ ]
   - Has crossed my mind [ ]
   - Definitely have [ ]

61 Have you recently found that the idea of taking your own life kept coming into your mind?
   - Definitely not [ ]
   - I don't think so [ ]
   - Has crossed my mind [ ]
   - Definitely has [ ]

The following two questions ask about your views about the usefulness of websites for depression.

62 I am confident that people could learn skills for preventing depression from a website.
   - Strongly agree [ ]
   - Agree [ ]
   - Neither agree nor disagree [ ]
   - Disagree [ ]
   - Strongly disagree [ ]

63 I am confident that a website could help people understand depression better.
   - Strongly agree [ ]
   - Agree [ ]
   - Neither agree nor disagree [ ]
   - Disagree [ ]
   - Strongly disagree [ ]

The following sets of questions are about things people might do to cope with depression.

This first section refers to different people (some professional, some not) who might help someone who has depression. We would like you to rate whether you think these people are likely to be helpful for someone with depression.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>64 GPs</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>65 Counsellors and clinical psychologists</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>66 Psychiatrists</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>67 Family and friends</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

This next list is about medical treatments. We would like you to rate whether you consider each of these treatments is likely to be helpful or not for someone who has depression.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>68 Antidepressants</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>69 Electroconvulsive therapy</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>70 Oestrogen</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
This next list refers to **psychological treatments** people might use to help with depression. Please rate whether or not you think each treatment is likely to be **helpful** for someone with depression.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>Cognitive Behaviour Therapy</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>72</td>
<td>Interpersonal Psychotherapy</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>73</td>
<td>Psychodynamic Psychotherapy</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>74</td>
<td>Counselling</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>75</td>
<td>Reading self-help books for depression</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
</tbody>
</table>

We would now like you to tell us which of the following treatments or activities (if any) you have used in the past 2 months to cope with depression.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>GPs</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>Counsellors and clinical psychologists</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>Psychiatrists</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>Family and friends</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>Antidepressants</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>Electroconvulsive therapy</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>Oestrogen</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>Cognitive-Behaviour Therapy</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>Interpersonal Psychotherapy</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>Psychodynamic Psychotherapy</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>107</td>
<td>Counselling</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>108</td>
<td>Reading self-help books for depression</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>109</td>
<td>St John’s wort</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>Light therapy</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>111</td>
<td>Acupuncture</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>Exercise</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>113</td>
<td>Yoga</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>114</td>
<td>Avoiding caffeine</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>115</td>
<td>Eating chocolate</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>116</td>
<td>Taking fish oils</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>117</td>
<td>Meditation</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>118</td>
<td>Massage</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>119</td>
<td>Aromatherapy</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>Relaxation therapy</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>121</td>
<td>Dance and movement therapy</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>122</td>
<td>Listening to music</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>Being with pets</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>Doing more things you enjoy</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>125</td>
<td>Avoiding sugar</td>
<td>☐️ 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This next list refers to **changes in lifestyle or alternative treatments** some people might use in an effort to reduce depression. Please tick whether you think each would be **helpful** or not.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>St John’s wort</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>77</td>
<td>Light therapy</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>78</td>
<td>Acupuncture</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>79</td>
<td>Exercise</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>80</td>
<td>Yoga</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>81</td>
<td>Avoiding caffeine</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>82</td>
<td>Eating chocolate</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>83</td>
<td>Taking fish oils</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>84</td>
<td>Meditation</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>85</td>
<td>Massage</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>86</td>
<td>Aromatherapy</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>87</td>
<td>Relaxation therapy</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>88</td>
<td>Dance and movement therapy</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>89</td>
<td>Listening to music</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>90</td>
<td>Being with pets</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>91</td>
<td>Doing more things you enjoy</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
<tr>
<td>92</td>
<td>Avoiding sugar</td>
<td>☐️ 1</td>
<td>☐️ 2</td>
<td>☐️ 3</td>
</tr>
</tbody>
</table>
Questions 131 to 139 contain statements about depression. Please indicate how strongly you personally agree or disagree with each statement.

131 People with depression could snap out of it if they wanted.

- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

132 Depression is a sign of personal weakness.

- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

133 Depression is not a real medical illness.

- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

134 People with depression are dangerous.

- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

135 It is best to avoid people with depression so that you don’t become depressed yourself.

- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

136 People with depression are unpredictable.

- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

137 If I had depression I would not tell anyone.

- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

138 I would not employ someone if I knew they had been depressed.

- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

139 I would not vote for a politician if I knew they had been depressed.

- Strongly agree 1
- Agree 2
- Neither agree nor disagree 3
- Disagree 4
- Strongly disagree 5

The following questions are about your understanding of the symptoms of depression and the way it can be treated. Please tell me whether the statements below are true or false.

140 Reckless and foolhardy behaviour is a common sign of depression.

- True 1
- False 2
- Don’t know 3
141 Having several distinct personalities may be a sign of depression.

True 1
False 2
Don't know 3

142 Clinical psychologists can prescribe antidepressants.

True 1
False 2
Don't know 3

143 Moderate depression disrupts a person's life as much as Multiple Sclerosis or deafness.

True 1
False 2
Don't know 3

144 Many treatments for depression are more effective than antidepressants.

True 1
False 2
Don't know 3

145 Counselling is as effective as Cognitive Behavioural Therapy for depression.

True 1
False 2
Don't know 3

146 Cognitive Behavioural Therapy is as effective as antidepressants for mild to moderate depression.

True 1
False 2
Don't know 3

147 Of all the alternative and lifestyle treatments for depression, vitamins are likely to be the most helpful.

True 1
False 2
Don't know 3

148 People with depression should stop taking antidepressants as soon as they feel better.

True 1
False 2
Don't know 3

149 Antidepressants are addictive.

True 1
False 2
Don't know 3

150 Antidepressant medications usually work straight away.

True 1
False 2
Don't know 3

Questions 151 to 160 ask about ways of dealing with depression and your understanding of factors that affect depression.

151 How much do you think depression can be helped by making changes to the way you think?

Not at all 1
A little bit 2
Somewhat 3
Quite a bit 4
A lot 5

152 How much do you know about Cognitive Behavioural Therapy?

Almost nothing 1
Not very much 2
Quite a lot 3
A lot 4

153 Cognitive Behavioural Therapy involves understanding how childhood experiences contribute to depression.

Yes 1
No 2
Don't know 3
154 Happy people have a positive view of the future.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

155 'Jumping to conclusions' involves thinking negatively about something without supporting evidence.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

156 The statement 'I'm a stupid idiot' is an example of labelling.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

157 I should automatically believe my thoughts because they will more often than not be accurate.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

158 The central concept of overcoming negative emotions is to challenge and contest warpy thinking.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

159 Progressive muscular relaxation and meditation are techniques that have nothing in common with each other.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

160 The survey method in Cognitive Behaviour Therapy involves surfing the net.

Yes [ ] 1
No [ ] 2
Don't know [ ] 3

161 How many times have you called Lifeline in the past month?

None [ ] 1
1 time [ ] 2
2 times [ ] 3
About 3-10 times [ ] 4
About 11-19 times [ ] 5
About 20 or more times [ ] 6

Thank you very much for your participation.
### Appendix 20

**Twelve month follow-up questionnaire (Internet only and Internet plus tracking conditions)**

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Internet only</th>
<th>Internet plus tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How many times did you need to call the support line during the past 6 months?</td>
<td>Very frequently</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>2. Did you need to use the helpdesk during the past 6 months?</td>
<td>Occasionally</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>3. How satisfied are you with the service you received?</td>
<td>Very satisfied</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>4. Would you recommend this service to a friend?</td>
<td>Definitely</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>5. How likely are you to use this service again?</td>
<td>Very likely</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>

**Confidentiality**

We are required by law to keep this information confidential. Your survey will be kept separate from your personal information and will only be used for research purposes.
ECCO Survey 4

Confidentiality

We would like to emphasise that this is a voluntary survey and the information you provide will be treated in the strictest confidence. Your survey will be stored with an ID number only. Your name will be stored separately from all other information that you have provided.

Thank you for taking part in this project.

Please return this survey as soon as possible in the reply paid envelope provided.
Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

1 I was bothered by things that usually don't bother me.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

2 I did not feel like eating; my appetite was poor.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

3 I felt that I could not shake off the blues even with the help from my family or friends.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

4 I felt that I was just as good as other people.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

5 I had trouble keeping my mind on what I was doing.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

6 I felt depressed.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

7 I felt that everything I did was an effort.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

8 I felt hopeful about the future.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

9 I thought my life had been a failure.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

10 I felt fearful.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

11 My sleep was restless.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

12 I was happy.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4
<table>
<thead>
<tr>
<th>Question</th>
<th>Rarely or none of the time (less than 1 day)</th>
<th>Some or a little of the time (1-2 days)</th>
<th>Occasionally or a moderate amount of time (3-4 days)</th>
<th>Most or all of the time (5-7 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 I talked less than usual.</td>
<td>![1]</td>
<td>![2]</td>
<td>![3]</td>
<td>![4]</td>
</tr>
<tr>
<td>14 I felt lonely.</td>
<td>![1]</td>
<td>![2]</td>
<td>![3]</td>
<td>![4]</td>
</tr>
<tr>
<td>15 People were unfriendly.</td>
<td>![1]</td>
<td>![2]</td>
<td>![3]</td>
<td>![4]</td>
</tr>
<tr>
<td>16 I enjoyed life.</td>
<td>![1]</td>
<td>![2]</td>
<td>![3]</td>
<td>![4]</td>
</tr>
<tr>
<td>17 I had crying spells.</td>
<td>![1]</td>
<td>![2]</td>
<td>![3]</td>
<td>![4]</td>
</tr>
<tr>
<td>18 I felt sad.</td>
<td>![1]</td>
<td>![2]</td>
<td>![3]</td>
<td>![4]</td>
</tr>
<tr>
<td>19 I felt that people dislike me.</td>
<td>![1]</td>
<td>![2]</td>
<td>![3]</td>
<td>![4]</td>
</tr>
<tr>
<td>20 I could not get &quot;going&quot;.</td>
<td>![1]</td>
<td>![2]</td>
<td>![3]</td>
<td>![4]</td>
</tr>
</tbody>
</table>

*Please read each statement below and tick the box that indicates how much the statement applied to you over the past week.*

<table>
<thead>
<tr>
<th>Question</th>
<th>Rarely or none of the time (less than 1 day)</th>
<th>Some or a little of the time (1-2 days)</th>
<th>Occasionally or a moderate amount of time (3-4 days)</th>
<th>Most or all of the time (5-7 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 I was aware of dryness of my mouth.</td>
<td>![1]</td>
<td>![2]</td>
<td>![3]</td>
<td>![4]</td>
</tr>
<tr>
<td>22 I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion).</td>
<td>![1]</td>
<td>![2]</td>
<td>![3]</td>
<td>![4]</td>
</tr>
<tr>
<td>23 I had a feeling of shakiness (e.g. legs going to give way).</td>
<td>![1]</td>
<td>![2]</td>
<td>![3]</td>
<td>![4]</td>
</tr>
</tbody>
</table>
24 I found myself in situations that made me so anxious I was most relieved when they ended.

Did not apply to me at all [ ]
Applied to me to some degree, or some of the time [ ]
Applied to me to a considerable degree, or a good part of the time [ ]
Applied to me very much, or most of the time [ ]

25 I had a feeling of faintness.

Did not apply to me at all [ ]
Applied to me to some degree, or some of the time [ ]
Applied to me to a considerable degree, or a good part of the time [ ]
Applied to me very much, or most of the time [ ]

26 I perspired noticeably (e.g. hands sweaty) in the absence of high temperatures or physical exertion.

Did not apply to me at all [ ]
Applied to me to some degree, or some of the time [ ]
Applied to me to a considerable degree, or a good part of the time [ ]
Applied to me very much, or most of the time [ ]

27 I felt scared without any good reason.

Did not apply to me at all [ ]
Applied to me to some degree, or some of the time [ ]
Applied to me to a considerable degree, or a good part of the time [ ]
Applied to me very much, or most of the time [ ]

28 I had difficulty in swallowing.

Did not apply to me at all [ ]
Applied to me to some degree, or some of the time [ ]
Applied to me to a considerable degree, or a good part of the time [ ]
Applied to me very much, or most of the time [ ]

29 I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat).

Did not apply to me at all [ ]
Applied to me to some degree, or some of the time [ ]
Applied to me to a considerable degree, or a good part of the time [ ]
Applied to me very much, or most of the time [ ]

30 I felt I was close to panic.

Did not apply to me at all [ ]
Applied to me to some degree, or some of the time [ ]
Applied to me to a considerable degree, or a good part of the time [ ]
Applied to me very much, or most of the time [ ]

31 I feared that I would be “thrown” by some trivial but unfamiliar task.

Did not apply to me at all [ ]
Applied to me to some degree, or some of the time [ ]
Applied to me to a considerable degree, or a good part of the time [ ]
Applied to me very much, or most of the time [ ]

32 I felt terrified.

Did not apply to me at all [ ]
Applied to me to some degree, or some of the time [ ]
Applied to me to a considerable degree, or a good part of the time [ ]
Applied to me very much, or most of the time [ ]

33 I was worried about situations in which I might panic and make a fool of myself.

Did not apply to me at all [ ]
Applied to me to some degree, or some of the time [ ]
Applied to me to a considerable degree, or a good part of the time [ ]
Applied to me very much, or most of the time [ ]
34 I experienced trembling (eg. in the hands).

Did not apply to me at all  
1
Applied to me to some degree, or 
some of the time  
2
Applied to me to a considerable degree, or a 
good part of the time  
3
Applied to me very much, or most of the time  
4

Listed below are a variety of thoughts that pop into people's heads. Please read each thought and indicate how frequently, if at all, the thought occurred to you over the last week.

35 I'm no good.

Not at all  
1
Sometimes  
2
Moderately often  
3
Often  
4
All the time  
5

36 I'm so disappointed in myself.

Not at all  
1
Sometimes  
2
Moderately often  
3
Often  
4
All the time  
5

37 What's wrong with me?

Not at all  
1
Sometimes  
2
Moderately often  
3
Often  
4
All the time  
5

38 I'm worthless.

Not at all  
1
Sometimes  
2
Moderately often  
3
Often  
4
All the time  
5

39 I feel so helpless.

Not at all  
1
Sometimes  
2
Moderately often  
3
Often  
4
All the time  
5

40 Something has to change.

Not at all  
1
Sometimes  
2
Moderately often  
3
Often  
4
All the time  
5

41 My future is bleak.

Not at all  
1
Sometimes  
2
Moderately often  
3
Often  
4
All the time  
5

42 I can't finish anything.

Not at all  
1
Sometimes  
2
Moderately often  
3
Often  
4
All the time  
5

The following questions ask you how you feel about your quality of life, health or other areas of your life. Think about your life in the past 2 weeks.

43 How would you rate your quality of life?

Very poor  
1
Poor  
2
Neither poor nor good  
3
Good  
4
Very good  
5

44 How satisfied are you with your health?

Very dissatisfied  
1
Dissatisfied  
2
Neither satisfied nor dissatisfied  
3
Satisfied  
4
Very satisfied  
5

45 Do you have enough energy for everyday life?

Not at all  
1
A little  
2
Moderately  
3
Mostly  
4
Completely  
5
46 How satisfied are you with your ability to perform your daily activities?

- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

47 How satisfied are you with yourself?

- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

48 How satisfied are you with your personal relationships?

- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

49 Have you enough money to meet your needs?

- Not at all □ 1
- A little □ 2
- Moderately □ 3
- Mostly □ 4
- Completely □ 5

50 How satisfied are you with the conditions of your living place?

- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

51 Accomplished less than you would like?

- Yes □ 1
- No □ 2

52 Didn’t do work or other activities as carefully as usual?

- Yes □ 1
- No □ 2

Questions 53 to 57 are concerned with your alcohol consumption. Please tick the response that best fits your drinking.

53 How often do you have a drink containing alcohol?

- Never (go to Q56) □ 1
- Monthly or less □ 2
- 2-4 times a month □ 3
- 2-3 times a week □ 4
- 4 or more times a week □ 5

54 How many drinks containing alcohol do you have on a typical day when drinking?

- 1 or 2 □ 1
- 3 or 4 □ 2
- 5 or 6 □ 3
- 7 to 9 □ 4
- 10 or more □ 5

55 How often during the last year have you found that you were not able to stop drinking once you had started?

- Never □ 1
- Less than monthly □ 2
- Monthly □ 3
- Weekly □ 4
- Daily or almost daily □ 5

56 How often during the last year have you failed to do what was normally expected from you because of your drinking?

- Never □ 1
- Less than monthly □ 2
- Monthly □ 3
- Weekly □ 4
- Daily or almost daily □ 5

57 Has a relative, friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

- No □ 1
- Yes, but not in the last year □ 2
- Yes, during the last year □ 3
Questions 58 to 61 are related to how you have felt over the last few weeks.

58 Have you recently felt that life is not worth living?

- Not at all [ ]
- No more than usual [ ]
- Rather more than usual [ ]
- Much more than usual [ ]

59 Have you recently found yourself wishing you were dead and away from it all?

- Not at all [ ]
- No more than usual [ ]
- Rather more than usual [ ]
- Much more than usual [ ]

60 Have you recently thought of the possibility that you might do away with yourself?

- Definitely not [ ]
- I don't think so [ ]
- Has crossed my mind [ ]
- Definitely have [ ]

61 Have you recently found that the idea of taking your own life kept coming into your mind?

- Definitely not [ ]
- I don’t think so [ ]
- Has crossed my mind [ ]
- Definitely has [ ]

The following two questions ask about your views about the usefulness of websites for depression.

62 I am confident that people could learn skills for preventing depression from a website.

- Strongly agree [ ]
- Agree [ ]
- Neither agree nor disagree [ ]
- Disagree [ ]
- Strongly disagree [ ]

63 I am confident that a website could help people understand depression better.

- Strongly agree [ ]
- Agree [ ]
- Neither agree nor disagree [ ]
- Disagree [ ]
- Strongly disagree [ ]

The following sets of questions are about things people might do to cope with depression.

This first section refers to different people (some professional, some not) who might help someone who has depression. We would like you to rate whether you think these people are likely to be helpful for someone with depression.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>64 GPs</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>65 Counsellors and clinical psychologists</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>66 Psychiatrists</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>67 Family and friends</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

This next list is about medical treatments. We would like you to rate whether you consider each of these treatments is likely to be helpful or not for someone who has depression.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>68 Antidepressants</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>69 Electro-convulsive therapy</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>70 Oestrogen</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
This next list refers to **psychological treatments** people might use to help with depression. Please rate whether or not you think each treatment is likely to be **helpful** for someone with depression.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>Cognitive Behaviour Therapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>72</td>
<td>Interpersonal Psychotherapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>73</td>
<td>Psychodynamic Psychotherapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>74</td>
<td>Counselling</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>75</td>
<td>Reading self-help books for depression</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
</tbody>
</table>

This next list refers to **changes in lifestyle or alternative treatments** some people might use in an effort to reduce depression. Please tick whether you think each would be **helpful** or not.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>St John’s wort</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>77</td>
<td>Light therapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>78</td>
<td>Acupuncture</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>79</td>
<td>Exercise</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>80</td>
<td>Yoga</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>81</td>
<td>Avoiding caffeine</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>82</td>
<td>Eating chocolate</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>83</td>
<td>Taking fish oils</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>84</td>
<td>Meditation</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>85</td>
<td>Massage</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>86</td>
<td>Aromatherapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmful</td>
<td>Harmful</td>
</tr>
<tr>
<td>87</td>
<td>Relaxation therapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>88</td>
<td>Dance and movement therapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>89</td>
<td>Listening to music</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>90</td>
<td>Being with pets</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>91</td>
<td>Doing more things you enjoy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>92</td>
<td>Avoiding sugar</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
</tbody>
</table>

*We would now like you to tell us which of the following treatments or activities (if any) you have used in the **past 2 months** to cope with depression.*

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>93</td>
<td>Cutting out alcohol</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>94</td>
<td>Using alcohol</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>95</td>
<td>Vitamins</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>96</td>
<td>Painkillers</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>GPs</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>98</td>
<td>Counsellors and clinical psychologists</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>99</td>
<td>Psychiatrists</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>100</td>
<td>Family and friends</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>101</td>
<td>Antidepressants</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>102</td>
<td>Electroconvulsive therapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>103</td>
<td>Oestrogen</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>104</td>
<td>Cognitive Behaviour Therapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>105</td>
<td>Interpersonal Psychotherapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>106</td>
<td>Psychodynamic Psychotherapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>107</td>
<td>Counselling</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>108</td>
<td>Reading self-help books for depression</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>109</td>
<td>St John’s wort</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>110</td>
<td>Light therapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>111</td>
<td>Acupuncture</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>112</td>
<td>Exercise</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>113</td>
<td>Yoga</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>114</td>
<td>Avoiding caffeine</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>115</td>
<td>Eating chocolate</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>116</td>
<td>Taking fish oils</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>117</td>
<td>Meditation</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>118</td>
<td>Massage</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>119</td>
<td>Aromatherapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>120</td>
<td>Relaxation therapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>121</td>
<td>Dance and movement therapy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>122</td>
<td>Listening to music</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>123</td>
<td>Being with pets</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>124</td>
<td>Doing more things you enjoy</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>125</td>
<td>Avoiding sugar</td>
<td>Helpful</td>
<td>Neither helpful nor harmed</td>
<td>Harmful</td>
</tr>
<tr>
<td>Page</td>
<td>Question</td>
<td>Options</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>126</td>
<td>Cutting out alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>127</td>
<td>Using alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>128</td>
<td>Vitamins</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>129</td>
<td>Painkillers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>130</td>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Questions 131 to 139 contain statements about depression. Please indicate how strongly you personally agree or disagree with each statement.**

<table>
<thead>
<tr>
<th>131</th>
<th>People with depression could snap out of it if they wanted.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>132</th>
<th>Depression is a sign of personal weakness.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>133</th>
<th>Depression is not a real medical illness.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>134</th>
<th>People with depression are dangerous.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>135</th>
<th>It is best to avoid people with depression so that you don’t become depressed yourself.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>136</th>
<th>People with depression are unpredictable.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>137</th>
<th>If I had depression I would not tell anyone.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>138</th>
<th>I would not employ someone if I knew they had been depressed.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>139</th>
<th>I would not vote for a politician if I knew they had been depressed.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**The following questions are about your understanding of the symptoms of depression and the way it can be treated. Please tell me whether the statements below are true or false.**

<table>
<thead>
<tr>
<th>140</th>
<th>Reckless and foolhardy behaviour is a common sign of depression.</th>
<th>True</th>
<th>False</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
141 Having several distinct personalities may be a sign of depression.
   True □ 1
   False □ 2
   Don't know □ 3

142 Clinical psychologists can prescribe antidepressants.
   True □ 1
   False □ 2
   Don't know □ 3

143 Moderate depression disrupts a person's life as much as Multiple Sclerosis or deafness.
   True □ 1
   False □ 2
   Don't know □ 3

144 Many treatments for depression are more effective than antidepressants.
   True □ 1
   False □ 2
   Don't know □ 3

145 Counselling is as effective as Cognitive Behavioural Therapy for depression.
   True □ 1
   False □ 2
   Don't know □ 3

146 Cognitive Behavioural Therapy is as effective as antidepressants for mild to moderate depression.
   True □ 1
   False □ 2
   Don't know □ 3

147 Of all the alternative and lifestyle treatments for depression, vitamins are likely to be the most helpful.
   True □ 1
   False □ 2
   Don't know □ 3

148 People with depression should stop taking antidepressants as soon as they feel better.
   True □ 1
   False □ 2
   Don't know □ 3

149 Antidepressants are addictive.
   True □ 1
   False □ 2
   Don't know □ 3

150 Antidepressant medications usually work straight away.
   True □ 1
   False □ 2
   Don't know □ 3

Questions 151 to 160 ask about ways of dealing with depression and your understanding of factors that affect depression.

151 How much do you think depression can be helped by making changes to the way you think?
   Not at all □ 1
   A little bit □ 2
   Somewhat □ 3
   Quite a bit □ 4
   A lot □ 5

152 How much do you know about Cognitive Behavioural Therapy?
   Almost nothing □ 1
   Not very much □ 2
   Quite a lot □ 3
   A lot □ 4

153 Cognitive Behavioural Therapy involves understanding how childhood experiences contribute to depression.
   Yes □ 1
   No □ 2
   Don't know □ 3
The following questions are about the websites that you visited during the project.

154 Happy people have a positive view of the future.

Yes 1
No 2
Don't know 3

155 ‘Jumping to conclusions’ involves thinking negatively about something without supporting evidence.

Yes 1
No 2
Don't know 3

156 The statement ‘I’m a stupid idiot’ is an example of labelling.

Yes 1
No 2
Don't know 3

157 I should automatically believe my thoughts because they will more often than not be accurate.

Yes 1
No 2
Don't know 3

158 The central concept of overcoming negative emotions is to challenge and contest warpy thinking.

Yes 1
No 2
Don't know 3

159 Progressive muscular relaxation and meditation are techniques that have nothing in common with each other.

Yes 1
No 2
Don't know 3

160 The survey method in Cognitive Behaviour Therapy involves surfing the net.

Yes 1
No 2
Don't know 3

161 Have you done anything differently because of the BluePages website?

Yes 1
No 2
Not sure 3

If yes, what have you done? (tick one or more of the following boxes):

- Sought more information 1
- Tried a self-help treatment 2
- Sought help from a health professional 3
- Given advice about depression to someone else 4
- Other 5

162 Have you been back to the sites since you finished the project?

Yes 1
No 2

163 Do you think you will use the websites in the future?

Yes 1
No 2
Not sure 3

164 Have you recommended the websites to others?

Yes 1
No 2

165 How many times have you called Lifeline in the past month?

None 1
1 time 2
2 times 3
About 3-10 times 4
About 11-19 times 5
About 20 or more times 6

Thank you very much for your participation
Appendix 21

Twelve month follow-up questionnaire (Tracking only condition)
ECCO Survey 4

Confidentiality

We would like to emphasise that this is a voluntary survey and the information you provide will be treated in the strictest confidence. Your survey will be stored with an ID number only. Your name will be stored separately from all other information that you have provided.

Thank you for taking part in this project.

Please return this survey as soon as possible in the reply paid envelope provided.
Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

1 I was bothered by things that usually don't bother me.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

2 I did not feel like eating; my appetite was poor.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

3 I felt that I could not shake off the blues even with the help from my family or friends.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

4 I felt that I was just as good as other people.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

5 I had trouble keeping my mind on what I was doing.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

6 I felt depressed.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

7 I felt that everything I did was an effort.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

8 I felt hopeful about the future.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

9 I thought my life had been a failure.
   - Rarely or none of the time (less than 1 day) □ 1
   - Some or a little of the time (1-2 days) □ 2
   - Occasionally or a moderate amount of time (3-4 days) □ 3
   - Most or all of the time (5-7 days) □ 4

10 I felt fearful.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4

11 My sleep was restless.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4

12 I was happy.
    - Rarely or none of the time (less than 1 day) □ 1
    - Some or a little of the time (1-2 days) □ 2
    - Occasionally or a moderate amount of time (3-4 days) □ 3
    - Most or all of the time (5-7 days) □ 4
13 I talked less than usual.

Rarely or none of the time (less than 1 day)  
Some or a little of the time (1-2 days)  
Occasionally or a moderate amount of time (3-4 days)  
Most or all of the time (5-7 days) 

14 I felt lonely.

Rarely or none of the time (less than 1 day)  
Some or a little of the time (1-2 days)  
Occasionally or a moderate amount of time (3-4 days)  
Most or all of the time (5-7 days) 

15 People were unfriendly.

Rarely or none of the time (less than 1 day)  
Some or a little of the time (1-2 days)  
Occasionally or a moderate amount of time (3-4 days)  
Most or all of the time (5-7 days) 

16 I enjoyed life.

Rarely or none of the time (less than 1 day)  
Some or a little of the time (1-2 days)  
Occasionally or a moderate amount of time (3-4 days)  
Most or all of the time (5-7 days) 

17 I had crying spells.

Rarely or none of the time (less than 1 day)  
Some or a little of the time (1-2 days)  
Occasionally or a moderate amount of time (3-4 days)  
Most or all of the time (5-7 days) 

18 I felt sad.

Rarely or none of the time (less than 1 day)  
Some or a little of the time (1-2 days)  
Occasionally or a moderate amount of time (3-4 days)  
Most or all of the time (5-7 days) 

19 I felt that people dislike me.

Rarely or none of the time (less than 1 day)  
Some or a little of the time (1-2 days)  
Occasionally or a moderate amount of time (3-4 days)  
Most or all of the time (5-7 days) 

20 I could not get "going".

Rarely or none of the time (less than 1 day)  
Some or a little of the time (1-2 days)  
Occasionally or a moderate amount of time (3-4 days)  
Most or all of the time (5-7 days) 

Please read each statement below and tick the box that indicates how much the statement applied to you over the past week.

21 I was aware of dryness of my mouth.

Did not apply to me at all  
Applied to me to some degree, or some of the time  
Applied to me to a considerable degree, or a good part of the time  
Applied to me very much, or most of the time 

22 I experienced breathing difficulty (eg. excessively rapid breathing, breathlessness in the absence of physical exertion).

Did not apply to me at all  
Applied to me to some degree, or some of the time  
Applied to me to a considerable degree, or a good part of the time  
Applied to me very much, or most of the time 

23 I had a feeling of shakiness (eg. legs going to give way).

Did not apply to me at all  
Applied to me to some degree, or some of the time  
Applied to me to a considerable degree, or a good part of the time  
Applied to me very much, or most of the time 
24 I found myself in situations that made me so anxious I was most relieved when they ended.

Did not apply to me at all  □
Applied to me to some degree, or some of the time  □
Applied to me to a considerable degree, or a good part of the time  □
Applied to me very much, or most of the time  □

25 I had a feeling of faintness.

Did not apply to me at all  □
Applied to me to some degree, or some of the time  □
Applied to me to a considerable degree, or a good part of the time  □
Applied to me very much, or most of the time  □

26 I perspired noticeably (e.g. hands sweaty) in the absence of high temperatures or physical exertion.

Did not apply to me at all  □
Applied to me to some degree, or some of the time  □
Applied to me to a considerable degree, or a good part of the time  □
Applied to me very much, or most of the time  □

27 I felt scared without any good reason.

Did not apply to me at all  □
Applied to me to some degree, or some of the time  □
Applied to me to a considerable degree, or a good part of the time  □
Applied to me very much, or most of the time  □

28 I had difficulty in swallowing.

Did not apply to me at all  □
Applied to me to some degree, or some of the time  □
Applied to me to a considerable degree, or a good part of the time  □
Applied to me very much, or most of the time  □

29 I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat).

Did not apply to me at all  □
Applied to me to some degree, or some of the time  □
Applied to me to a considerable degree, or a good part of the time  □
Applied to me very much, or most of the time  □

30 I felt I was close to panic.

Did not apply to me at all  □
Applied to me to some degree, or some of the time  □
Applied to me to a considerable degree, or a good part of the time  □
Applied to me very much, or most of the time  □

31 I feared that I would be "thrown" by some trivial but unfamiliar task.

Did not apply to me at all  □
Applied to me to some degree, or some of the time  □
Applied to me to a considerable degree, or a good part of the time  □
Applied to me very much, or most of the time  □

32 I felt terrified.

Did not apply to me at all  □
Applied to me to some degree, or some of the time  □
Applied to me to a considerable degree, or a good part of the time  □
Applied to me very much, or most of the time  □

33 I was worried about situations in which I might panic and make a fool of myself.

Did not apply to me at all  □
Applied to me to some degree, or some of the time  □
Applied to me to a considerable degree, or a good part of the time  □
Applied to me very much, or most of the time  □
34 I experienced trembling (eg. in the hands).

<table>
<thead>
<tr>
<th>Did not apply to me at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied to me to some degree, or some of the time</td>
<td>2</td>
</tr>
<tr>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td>3</td>
</tr>
<tr>
<td>Applied to me very much, or most of the time</td>
<td>4</td>
</tr>
</tbody>
</table>

35 I’m no good.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

36 I’m so disappointed in myself.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

37 What’s wrong with me?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

38 I’m worthless.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>6</td>
</tr>
</tbody>
</table>

39 I feel so helpless.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

40 Something has to change.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

41 My future is bleak.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

42 I can’t finish anything.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Moderately often</td>
<td>3</td>
</tr>
<tr>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>All the time</td>
<td>5</td>
</tr>
</tbody>
</table>

43 How would you rate your quality of life?

<table>
<thead>
<tr>
<th>Very poor</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>2</td>
</tr>
<tr>
<td>Neither poor nor good</td>
<td>3</td>
</tr>
<tr>
<td>Good</td>
<td>4</td>
</tr>
<tr>
<td>Very good</td>
<td>5</td>
</tr>
</tbody>
</table>

44 How satisfied are you with your health?

<table>
<thead>
<tr>
<th>Very dissatisfied</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissatisfied</td>
<td>2</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>3</td>
</tr>
<tr>
<td>Satisfied</td>
<td>4</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>5</td>
</tr>
</tbody>
</table>

45 Do you have enough energy for everyday life?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A little</td>
<td>2</td>
</tr>
<tr>
<td>Moderately</td>
<td>3</td>
</tr>
<tr>
<td>Mostly</td>
<td>4</td>
</tr>
<tr>
<td>Completely</td>
<td>5</td>
</tr>
</tbody>
</table>
46 How satisfied are you with your ability to perform your daily activities?

- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

47 How satisfied are you with yourself?

- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

48 How satisfied are you with your personal relationships?

- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

49 Have you enough money to meet your needs?

- Not at all □ 1
- A little □ 2
- Moderately □ 3
- Mostly □ 4
- Completely □ 5

50 How satisfied are you with the conditions of your living place?

- Very dissatisfied □ 1
- Dissatisfied □ 2
- Neither satisfied nor dissatisfied □ 3
- Satisfied □ 4
- Very satisfied □ 5

52 Didn't do work or other activities as carefully as usual?

- Yes □ 1
- No □ 2

53 How often do you have a drink containing alcohol?

- Never (go to Q59) □ 1
- Monthly or less □ 2
- 2-4 times a month □ 3
- 2-3 times a week □ 4
- 4 or more times a week □ 5

54 How many drinks containing alcohol do you have on a typical day when drinking?

- 1 or 2 □ 1
- 3 or 4 □ 2
- 5 or 6 □ 3
- 7 to 9 □ 4
- 10 or more □ 5

55 How often during the last year have you found that you were not able to stop drinking once you had started?

- Never □ 1
- Less than monthly □ 2
- Monthly □ 3
- Weekly □ 4
- Daily or almost daily □ 5

56 How often during the last year have you failed to do what was normally expected from you because of your drinking?

- Never □ 1
- Less than monthly □ 2
- Monthly □ 3
- Weekly □ 4
- Daily or almost daily □ 5

57 Has a relative, friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

- Yes □ 1
- No □ 2
- Yes, but not in the last year □ 2
- Yes, during the last year □ 3
Questions 58 to 61 are related to how you have felt over the last few weeks.

58 Have you recently felt that life is not worth living?
- Not at all [ ] 1
- No more than usual [ ] 2
- Rather more than usual [ ] 3
- Much more than usual [ ] 4

59 Have you recently found yourself wishing you were dead and away from it all?
- Not at all [ ] 1
- No more than usual [ ] 2
- Rather more than usual [ ] 3
- Much more than usual [ ] 4

60 Have you recently thought of the possibility that you might do away with yourself?
- Definitely not [ ] 1
- I don't think so [ ] 2
- Has crossed my mind [ ] 3
- Definitely have [ ] 4

61 Have you recently found that the idea of taking your own life kept coming into your mind?
- Definitely not [ ] 1
- I don't think so [ ] 2
- Has crossed my mind [ ] 3
- Definitely has [ ] 4

63 I am confident that a website could help people understand depression better.
- Strongly agree [ ] 1
- Agree [ ] 2
- Neither agree nor disagree [ ] 3
- Disagree [ ] 4
- Strongly disagree [ ] 5

The following sets of questions are about things people might do to cope with depression.

This first section refers to different people (some professional, some not) who might help someone who has depression. We would like you to rate whether you think these people are likely to be helpful for someone with depression.

| 64 GPs | | | |
| 65 Counsellors and clinical psychologists | | | |
| 66 Psychiatrists | | | |
| 67 Family and friends | | | |

This next list is about medical treatments. We would like you to rate whether you consider each of these treatments is likely to be helpful or not for someone who has depression.

| 68 Antidepressants | | | |
| 69 Electro-convulsive therapy | | | |
| 70 Oestrogen | | | |
This next list refers to **psychological treatments** people might use to help with depression. Please rate whether or not you think each treatment is likely to be **helpful** for someone with depression.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>Cognitive Behaviour Therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>72</td>
<td>Interpersonal Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>73</td>
<td>Psychodynamic Psychotherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>74</td>
<td>Counselling</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>75</td>
<td>Reading self-help books for depression</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

We would now like you to tell us which of the following treatments or activities (if any) **you** have used in the **past 2 months** to cope with depression.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>93</td>
<td>Cutting out alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>94</td>
<td>Using alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>95</td>
<td>Vitamins</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>96</td>
<td>Painkillers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

This next list refers to **changes in lifestyle or alternative treatments** some people might use in an effort to reduce depression. Please tick whether you think each would be **helpful** or not.

<table>
<thead>
<tr>
<th></th>
<th>Helpful</th>
<th>Neither helpful nor harmful</th>
<th>Harmful</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>St John’s wort</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>77</td>
<td>Light therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>78</td>
<td>Acupuncture</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>79</td>
<td>Exercise</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>80</td>
<td>Yoga</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>81</td>
<td>Avoiding caffeine</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>82</td>
<td>Eating chocolate</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>83</td>
<td>Taking fish oils</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>84</td>
<td>Meditation</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>85</td>
<td>Massage</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>86</td>
<td>Aromatherapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>87</td>
<td>Relaxation therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>88</td>
<td>Dance and movement therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>89</td>
<td>Listening to music</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>90</td>
<td>Being with pets</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>91</td>
<td>Doing more things you enjoy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>92</td>
<td>Avoiding sugar</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>GPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>Counsellors and clinical psychologists</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>Psychiatrists</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>Family and friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>Antidepressants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>Electroconvulsive therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>Oestrogen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>Cognitive Behaviour Therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>Interpersonal Psychotherapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>Psychodynamic Psychotherapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>107</td>
<td>Counselling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>108</td>
<td>Reading self-help books for depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>109</td>
<td>St John’s wort</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>Light therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>111</td>
<td>Acupuncture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>Exercise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>113</td>
<td>Yoga</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>114</td>
<td>Avoiding caffeine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>115</td>
<td>Eating chocolate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>116</td>
<td>Taking fish oils</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>117</td>
<td>Meditation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>118</td>
<td>Massage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>119</td>
<td>Aromatherapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>Relaxation therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>121</td>
<td>Dance and movement therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>122</td>
<td>Listening to music</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>Being with pets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>Doing more things you enjoy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>125</td>
<td>Avoiding sugar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Questions 131 to 139 contain statements about depression. Please indicate how strongly you personally agree or disagree with each statement.

131 People with depression could snap out of it if they wanted.

- Strongly agree [ ]
- Agree [ ]
- Neither agree nor disagree [ ]
- Disagree [ ]
- Strongly disagree [ ]

132 Depression is a sign of personal weakness.

- Strongly agree [ ]
- Agree [ ]
- Neither agree nor disagree [ ]
- Disagree [ ]
- Strongly disagree [ ]

133 Depression is not a real medical illness.

- Strongly agree [ ]
- Agree [ ]
- Neither agree nor disagree [ ]
- Disagree [ ]
- Strongly disagree [ ]

134 People with depression are dangerous.

- Strongly agree [ ]
- Agree [ ]
- Neither agree nor disagree [ ]
- Disagree [ ]
- Strongly disagree [ ]

135 It is best to avoid people with depression so that you don’t become depressed yourself.

- Strongly agree [ ]
- Agree [ ]
- Neither agree nor disagree [ ]
- Disagree [ ]
- Strongly disagree [ ]

136 People with depression are unpredictable.

- Strongly agree [ ]
- Agree [ ]
- Neither agree nor disagree [ ]
- Disagree [ ]
- Strongly disagree [ ]

137 If I had depression I would not tell anyone.

- Strongly agree [ ]
- Agree [ ]
- Neither agree nor disagree [ ]
- Disagree [ ]
- Strongly disagree [ ]

138 I would not employ someone if I knew they had been depressed.

- Strongly agree [ ]
- Agree [ ]
- Neither agree nor disagree [ ]
- Disagree [ ]
- Strongly disagree [ ]

139 I would not vote for a politician if I knew they had been depressed.

- Strongly agree [ ]
- Agree [ ]
- Neither agree nor disagree [ ]
- Disagree [ ]
- Strongly disagree [ ]

The following questions are about your understanding of the symptoms of depression and the way it can be treated. Please tell me whether the statements below are true or false.

140 Reckless and foolhardy behaviour is a common sign of depression.

- True [ ]
- False [ ]
- Don’t know [ ]
141 Having several distinct personalities may be a sign of depression.

True 1
False 2
Don't know 3

142 Clinical psychologists can prescribe antidepressants.

True 1
False 2
Don't know 3

143 Moderate depression disrupts a person's life as much as Multiple Sclerosis or deafness.

True 1
False 2
Don't know 3

144 Many treatments for depression are more effective than antidepressants.

True 1
False 2
Don't know 3

145 Counselling is as effective as Cognitive Behavioural Therapy for depression.

True 1
False 2
Don't know 3

146 Cognitive Behavioural Therapy is as effective as antidepressants for mild to moderate depression.

True 1
False 2
Don't know 3

147 Of all the alternative and lifestyle treatments for depression, vitamins are likely to be the most helpful.

True 1
False 2
Don't know 3

148 People with depression should stop taking antidepressants as soon as they feel better.

True 1
False 2
Don't know 3

149 Antidepressants are addictive.

True 1
False 2
Don't know 3

150 Antidepressant medications usually work straight away.

True 1
False 2
Don't know 3

Questions 151 to 160 ask about ways of dealing with depression and your understanding of factors that affect depression.

151 How much do you think depression can be helped by making changes to the way you think?

Not at all 1
A little bit 2
Somewhat 3
Quite a bit 4
A lot 5

152 How much do you know about Cognitive Behaviour Therapy?

Almost nothing 1
Not very much 2
Quite a lot 3
A lot 4

153 Cognitive Behaviour Therapy involves understanding how childhood experiences contribute to depression.

Yes 1
No 2
Don't know 3
154 Happy people have a positive view of the future.

| Yes | 1 |
| No  | 2 |
| Don't know | 3 |

155 'Jumping to conclusions' involves thinking negatively about something without supporting evidence.

| Yes | 1 |
| No  | 2 |
| Don't know | 3 |

156 The statement 'I'm a stupid idiot' is an example of labelling.

| Yes | 1 |
| No  | 2 |
| Don't know | 3 |

157 I should automatically believe my thoughts because they will more often than not be accurate.

| Yes | 1 |
| No  | 2 |
| Don't know | 3 |

158 The central concept of overcoming negative emotions is to challenge and contest warpy thinking.

| Yes | 1 |
| No  | 2 |
| Don't know | 3 |

159 Progressive muscular relaxation and meditation are techniques that have nothing in common with each other.

| Yes | 1 |
| No  | 2 |
| Don't know | 3 |

160 The survey method in Cognitive Behaviour Therapy involves surfing the net.

| Yes | 1 |
| No  | 2 |
| Don't know | 3 |

161 How many times have you called Lifeline in the past month?

| None | 1 |
| 1 time | 2 |
| 2 times | 3 |
| About 3-10 times | 4 |
| About 11-19 times | 5 |
| About 20 or more times | 6 |

Thank you very much for your participation.
Appendix 22

Telephone counsellor feedback survey
TELL US WHAT YOU THINK!...

Thank you for your involvement in the ECCO project. We are nearing the end of the project and we are interested in your thoughts and honest feedback about what it was like to offer callers information about the project.

"We value your feedback, EVEN if you have NEVER SPOKEN with a caller about the project"

We would like to ask you a few brief questions that should take 5-10 minutes to answer. Your participation is voluntary and your responses are anonymous. In recognition of you taking the time to complete the survey, we are offering you a $10 Coles/Myer voucher.

[This survey can also be completed online via the 'TC Feedback Survey' link on your TC computer desktop]

PRIVACY STATEMENT

Purpose of data collection
This information is being sought for a research project entitled The ECCO Project. The researcher is Prof. Helen Christensen, of the Centre for Mental Health Research, ANU. This survey aims to obtain feedback from telephone counsellors about their experiences of being involved in the ECCO Project. The information you provide will only be used for the purpose for which you have provided it. It will not be disclosed without your consent.

Security of the data
The data will be securely stored in a password protected file. At the completion of the research project, the data will be summarised and analysed, possibly for inclusion in an academic journal article. No names or other identifying information will be used.

**On completion, please place your completed survey in one reply-paid envelope and also detach the last page – ‘voucher information’ and place in the second reply-paid envelope. Then put both envelopes in the mail.

For any questions or concerns, please contact the ECCO trial manager, Nicole, on 07 3250 1914 or nicole.burgess@lccq.org.au
Part 1: Telephone Counsellors Experiences

Q1. Which Lifeline centre are you a TC at?

Q2. How long have you been a TC?

Q3. How often did you provide an ECCO invitation to callers? (Please approximate if you don’t remember exactly, i.e., at least once a shift)

Q4. If you did provide ECCO invitations, what was your experience of this? (e.g. was it generally positive, negative, or neutral? How did you feel?, How did the caller react?)
**ECCO Feedback Survey – Telephone Counsellors**

### Part 2: Caller Invitation - Reasons

Q5. If there were times when you did not provide an ECCO invitation to callers, what were your reasons for this? *Please circle to what degree each statement applied to you.*

<table>
<thead>
<tr>
<th>Reason</th>
<th>Did not apply</th>
<th>Applied a little of the time</th>
<th>Applied some of the time</th>
<th>Applied most of the time</th>
<th>Applied all of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn’t know how to provide an invitation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I felt like I didn’t understand the project well enough</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I felt too uncomfortable or awkward to ask the questions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I did not feel that the callers I spoke to were appropriate for an invitation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I forgot to ask the caller</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I forgot to submit the online invitation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I don’t think it is appropriate to conduct research with Lifeline callers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I think the aims of the project are not in line with the aims of the crisis line (e.g. offering callers a different “helping/therapeutic” approach, i.e. CBT)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I felt that asking the questions would impact negatively on the relationship between myself and the caller</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I don’t think I should be expected to do anything extra in addition to telephone counselling</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>A caller that I asked reacted negatively, so I did not ask any other callers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I got sick of asking because none of the callers I asked were interested or had access to the Internet</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>No other telephone counsellors on my shift were asking callers, so neither did I</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I think the regular referrals that we offer are enough for callers at the moment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Q6. Were there any other reasons that were not listed above?
Q7. If you had to choose **ONE** main reason, which would it be? *Tick only one of the following.*

<table>
<thead>
<tr>
<th>Reason</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn’t know how to provide an invitation</td>
<td></td>
</tr>
<tr>
<td>I felt like I didn’t understand the project well enough</td>
<td></td>
</tr>
<tr>
<td>I felt too uncomfortable or awkward to ask the questions</td>
<td></td>
</tr>
<tr>
<td>I did not feel that the callers I spoke to were appropriate for an invitation</td>
<td></td>
</tr>
<tr>
<td>I forgot to ask the caller</td>
<td></td>
</tr>
<tr>
<td>I forgot to submit the online invitation</td>
<td></td>
</tr>
<tr>
<td>I don’t think it is appropriate to conduct research with Lifeline callers</td>
<td></td>
</tr>
<tr>
<td>I think the aims of the project are not in line with the aims of the crisis line (e.g. offering callers a different “helping/therapeutic” approach, i.e. CBT)</td>
<td></td>
</tr>
<tr>
<td>I felt that asking the questions would impact negatively on the relationship between myself and the caller</td>
<td></td>
</tr>
<tr>
<td>I don’t think I should be expected to do anything extra in addition to telephone counselling</td>
<td></td>
</tr>
<tr>
<td>A caller that I asked reacted negatively, so I did not ask any other callers</td>
<td></td>
</tr>
<tr>
<td>I got sick of asking because none of the callers I asked were interested or had access to the Internet</td>
<td></td>
</tr>
<tr>
<td>No other telephone counsellors on my shift were asking callers, so neither did I</td>
<td></td>
</tr>
<tr>
<td>I think the regular referrals that we offer are enough for callers at the moment</td>
<td></td>
</tr>
<tr>
<td><strong>Other (please specify)</strong></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for taking the time to complete the survey. Your feedback is important!

Please turn to the next page to find out how to receive your $10 Coles/Myer voucher.
Appendix 23

Intervention manual (Internet only and Internet plus tracking conditions)
Website program
Manual for participants
The image contains the following text:

Website
Program
Manual
for
Participants
Welcome to the ECCO Project!

This manual is designed to guide you through the website program in the ECCO project. It contains information, week-by-week instructions, and answers to questions that may come up as you work through the program. It also gives you a feel for the sort of material that is presented to you each week. The program you will do involves visiting 2 websites: MoodGYM and BluePages. See below for some information about these sites.

What is BluePages?

BluePages is a website that provides information about depression, such as the symptoms of depression, the effectiveness of different treatments available, and where to go to find help and further information about depression.

What is MoodGYM?

MoodGYM is a web-based training program that provides users with a specific set of techniques for preventing depression. MoodGYM is made up of 5 interactive Modules that contain demonstrations, information, 'homework' exercises and workouts. Completing the short exercises is an important part of MoodGYM and your responses to these exercises are automatically saved into your MoodGYM 'workbook'. The workbook is a handy tool to track your progress through the program.
What will I be doing each week?

Here’s a quick rundown of what you’ll be doing over the next 6 weeks:

**Week 1. Visit BluePages website**
Learn about symptoms, treatments and help for depression

**Week 2. Complete Module 1 of MoodGYM**
Feelings: Why you feel the way you do

**Week 3. Complete Module 2 of MoodGYM**
Thoughts: Changing the way we think

**Week 4. Complete Module 3 of MoodGYM**
Unwarping: Changing warped thoughts

**Week 5. Complete Module 4 of MoodGYM**
De-Stressing: Knowing what makes you upset

**Week 6. Complete Module 5 of MoodGYM**
Relationships: Relationships and how they work out

How do I do this?

This manual is divided into weekly sections. Just flip to the week you are up to and you will find step-by-step instructions and information on your tasks for each week.

If you get stuck, at the back of the manual are some common questions and answers, and tips for using the websites.

**Time involved**

As a rough estimate, the tasks for you to complete each week should take around 30 minutes. However, some people have found that tasks in some weeks take longer or shorter than others, so don’t worry if this happens to you! The most important thing is that you get some benefit from the programs, and take as much or as little time as you need to do this.
...we would like you to fill in the "Starting the website" questions.
The questions are designed to capture some of your feelings about starting the program.
Please return the questions in the reply-paid envelope provided.
Week 1: Welcome to BluePages!

GOAL

The goal for this week is to become familiar with the BluePages website. We would like you to visit different sections of the website to learn about the symptoms of depression, how depression is diagnosed, and effective medical, psychological and alternative treatments.

Some information to help you get started...

How do I access BluePages?

Open your Internet browser (i.e. Internet Explorer), type in the following web address:

and press 'Enter'. The BluePages homepage should appear. If an error message appears, check that you have typed in the web address exactly as it is shown above.

How do I work my way around BluePages?

The information on BluePages is organised into sections that you can access in different ways. You can get to each section by clicking on the links on the purple toolbar along the top of BluePages, or by clicking on the sections on the main homepage.

To move through the information in each section, click 'next' at the bottom of the page. To get back to the main page and read a new section, click 'home' on the top left-hand corner of the screen.
What do I do this week?

1. Go to BluePages by typing in the following web address:

2. To start, we'd like you to check out 'About BluePages' by clicking on the purple toolbar along the top of BluePages.

3. Now, have a look at the Symptoms section. To do this, click on 'Symptoms' along the toolbar or the 'Symptoms' section on the front page. Read about different experiences of depression, how depression is diagnosed, and fill out the Depression and Anxiety quizzes.

4. Next, click on the section labelled 'Treatments'. Read about the depression treatments rating system, different types of scientific evidence and 'what works' for depression and what doesn't. In the 'what works for depression' section, click on different treatments to find out more about them.

5. The final section we would like you to look at is 'Help and Resources'. Click on 'Help and Resources' along the toolbar. Have a look at the types of help and other resources that could be useful for depression.

6. Feel free to have a browse around the rest of the website if you would like.

CHECKLIST

Did you...

☐ Fill in and return the 'Starting the website program' questions?
☐ Log in to BluePages?
☐ Read about the symptoms of depression?
☐ Read about depression treatments?
☐ Find out about useful help and resources?
WEEK 2: MOODGYM MODULE 1

Feelings: Why you feel the way you do
Week 2: Welcome to MoodGYM!

GOAL
The goal for this week is to start the MoodGYM program and complete Module 1.

Some information about MoodGYM to help you get started...

What is MoodGYM like?

The Modules in MoodGYM are designed to build on one another and aim to teach you new ideas and skills by:

1. Giving you information and real life examples
2. Getting you to complete exercises

The exercises in MoodGYM are varied and are an important part of completing the program. The Depression and Anxiety quizzes at the start of each Module let you see if your thoughts and feelings are changing as you work through the program. Most of the exercises you complete as you go, but there are some 'homework' exercises that we recommend you practice in the time between completing each Module.

How do I log in to MoodGYM?

To start MoodGYM, open your Internet browser and type in: http://moodgym.anu.edu.au.

The site opens with the screen shown on the right. We have already registered you as a user, so click on 'Registered users'.

Now you will need to enter a username and password:

Your username is: 
Your password is: 

Type your username and password into the boxes and press 'Enter'. Use this username and password each time you log in to MoodGYM. If you forget your password please ring the ECCO team on (07) 3250 1914 or e-mail us at ecco@anu.edu.au and we will look it up for you.
A few tips for using MoodGYM:

To move back and forth between screens in MoodGYM:
Use the **NEXT** and **BACK** buttons on the right of the screen to navigate your way within the Modules.

To open the workbook:
Click on the 'Workbook' button at the bottom of the screen. Every exercise and quiz you complete will be automatically saved in your workbook. Once you move on to the next Module, you will not be able to change your workbook responses for any previous Modules (although you will be able to browse them).

Pop-up windows:
There are many links to pop-up windows throughout MoodGYM. Most of these windows will have a **close window** button at the bottom of the text, which you can click on to take you back to the main page. If they do not, click on the small box with a cross in it, in the top right hand corner to close the window.

Finishing each Module:
When you have finished a Module, the next Module button will appear on the right side of the screen. You can begin the next Module by clicking on this button.

Going back to Modules:
The web program that runs MoodGYM is set up to allow you to complete one Module each week. You are welcome to go back to previous Modules anytime and review your work, but you will not be able to change your answers to the exercises.

Skipping ahead to Modules:
Because MoodGYM is designed for you to complete one Module a week, it doesn’t allow you to skip ahead. If you try and access a Module before the week you are supposed to do it in, the program will display an error message saying you’re too early.

What do I do this week?

1. Log in to MoodGYM. Once you have entered your username and password, the following welcome screen will appear. At the bottom of the screen you will notice a number of links that give you different options about where to go next. We suggest you click on 'what is MoodGYM'. This will give you some of the background behind how MoodGYM was developed.
2. Next click on ‘Begin the training program’ and read the information on that screen. Click Next to continue.

3. The following screen introduces you to the characters in MoodGYM. You can find out about each character by clicking on the pictures.

4. Complete the first Depression and Anxiety quizzes. To enter your answers to the quiz, just click in the circle for either 'yes' or 'no' and then click ‘Save responses’. When you have completed the quiz you will get immediate feedback about your results. Your results will also be entered into your Workbook.

5. Complete the first Warpy Thoughts quiz.

6. Continue through Module 1 and complete all exercises.
What happens in Module 1?

Module 1 of MoodGYM gives you an introduction to the training program, lets you learn more about your own vulnerabilities and starts to provide information about how to extend your understanding of your emotions.

This week you will:
- Find out whether you have symptoms of depression or anxiety
- Meet the characters in MoodGYM
- Find out about negative views, biased perceptions of situations or negativity about the future
- Discover if you have biased views of the future or of yourself
- Learn about WUTIWUF
- Find out positive ways to respond to day-to-day challenges

7. At the end of Module 1, you will be provided with a summary sheet for you to print out (if you like). The summary sheet contains all your results from Module 1 and has a place for you to put down some personal goals for the week.

Homework for this week (complete before next Module):

Exercise: 3 Encounters of an emotional kind. Go back to MoodGYM anytime over the week to complete this exercise.

CHECKLIST

Did you...
- Log in to MoodGYM?
- Complete the Depression, Anxiety and Warpy Thoughts quizzes?
- Complete Module 1 (including all exercises)?
- Print off your summary sheet (optional)?
WEEK 3: MOODGYM MODULE 2

Thoughts: Changing the way we think
Week 3: MoodGYM Module 2

GOAL

The goal for this week is to complete Module 2 of MoodGYM.

What do I do this week?

1. Log in to MoodGYM and click on 'Thoughts' in the list along the right-hand side of the screen. (If there is no 'Thoughts' button, see 'Tips for using MoodGYM' on page 11 or the 'Questions and Answers' section at the back of the manual).

2. Work through Module 2 and complete all exercises. You will have the opportunity to complete the Depression and Anxiety quizzes again in this Module. It is a good idea to do this, because it will allow you to see if your feelings change as you work through the program. Click on the NEXT and BACK buttons to move through the Module.

What happens in Module 2?

This week you will:
- Learn to identify common biased or 'Warped' Thoughts. Lots of people have them. See if you can identify them in yourself.
- Learn how to challenge and contest these Warpy Thoughts – they may not be accurate!
- Find out the sorts of areas you are most vulnerable in: Is it the need for approval, the need to be loved, the need to succeed, the need to be perfect…or something else?
- Learn about self-esteem and how to improve it.

'Warped' thoughts screen

Self-esteem screen
3. Take the Warpy Thoughts quiz:

4. Print out your summary page (optional).

Homework for this week (complete before next Module):
Exercise: Being nice to yourself for a change. Go back to MoodGYM anytime over the week to complete this exercise.

CHECKLIST

Did you...

☐ Log in to MoodGYM?
☐ Complete the Depression, Anxiety and Warpy Thoughts quizzes?
☐ Complete Module 2 (including all exercises)?
☐ Print off your summary sheet (optional)?
Week 3: MoodGym Module 2

What do I do today?

Today is Monday and the start of a new week. It's a great opportunity to take a fresh look at your goals and plan your week accordingly. Let's get started!

1. Review your goals from last week. Did you achieve them? Are you ready to set new ones?
2. Reflect on your past week. What did you accomplish? What could you improve?
3. Plan your tasks for the week. Make a list of everything you need to do.
4. Set aside time for self-care. Don't forget to take care of yourself.
5. If you're feeling overwhelmed, take a deep breath and break your tasks into smaller, manageable pieces.

Remember, every small step counts. Keep moving forward!

Exercises: Do 2 sets of 10 reps for each exercise. Do your best to maintain proper form.

Day 1:

- Squats (2 sets x 10 reps)
- Lunges (2 sets x 10 reps)
- Push-ups (2 sets x 10 reps)

Day 2:

- Bicep curls (2 sets x 10 reps)
- Tricep dips (2 sets x 10 reps)
- Leg press (2 sets x 10 reps)

Day 3:

- Abdominal crunches (2 sets x 10 reps)
- Leg extensions (2 sets x 10 reps)
- Glute bridge (2 sets x 10 reps)
WEEK 4: MOODGYM MODULE 3

Unwarping: Changing warped thoughts
Week 4: MoodGYM Module 3

**GOAL**

The goal for this week is to complete MoodGYM Module 3.

What do I do this week?

1. Log in to MoodGYM and click on 'Unwarping' on the right-hand side of the screen.

2. Work through Module 3 and complete all exercises. Don’t forget to fill in the Depression and Anxiety quizzes on the first page. Click on NEXT and BACK to move through the Module.

What happens in Module 3?

This week you will:

- Learn ways to modify your thinking – taking the role of the reporter, increasing positive thinking, setting up thought experiments, trying new ways of responding, being your own coach and mental biofeedback...Try them all and see which works best!
- Review the areas of vulnerability and learn how to improve in areas where you may be at risk.
- Have the chance to work out what activities you enjoy and don’t enjoy doing, and how much time you spend on each of these.

Taking the role of the reporter

Increase positive self-interpretations
3. Review your areas of vulnerability. Based on your responses in the previous Module, MoodGYM will identify the areas of vulnerability you scored highly on. Click on these areas for specific suggestions and exercises. You can visit all sections if you wish.

4. Complete the Pleasant Events Schedule. BEWARE! This is a long exercise, but it is helpful to pin-point how often you are engaged in activities that you enjoy and don’t enjoy doing.

5. Don’t forget to print out the summary of your achievements page for Module 3 (optional).

CHECKLIST

Did you...

☐ Log in to MoodGYM?

☐ Complete the Depression and Anxiety quizzes, and the pleasant events schedule?

☐ Complete Module 3 (including all exercises)?

☐ Print off your summary sheet (optional)?
WEEK 5: MOODGYM MODULE 4

De-stressing: Knowing what makes you upset
Week 5: MoodGYM Module 4

**GOAL**

The goal for this week is to complete MoodGYM Module 4.

1. Log in to MoodGYM and click on 'De-Stressing' on the right-hand side of the screen.

2. Complete the Depression and Anxiety quizzes.

3. Work through and complete Module 4, including all exercises.

**What happens in Module 4?**

Module 4 is designed to get you to relax and cope with stress better.

**This week you will:**

- Take a quick tour of information about stress and how it works. Find out about the stressors in your life and how they might affect you.
- Examine your relationships with your family, particularly with your parents.
- Be introduced to some relaxation exercises.
- View the Relaxfest Game Show!

4. Complete the 'Life Whacks' exercise (below). This exercise helps to identify the number of stressful events that you have experienced in the last year, and how this affects your vulnerability to depression.

5. Complete the Mum and Dad quiz. This provides feedback about your relationships with your parents. Although it is written from the perspective of the young person, this section is designed for both parents and children and also provides information for those who might be parents!
6. Take a look at the 'Relaxfest' Game Show. To view this, click on the small orange 'next' button near the bottom of the screen.

7. There are three taped relaxation exercises that you can download by clicking on the links on the screen below. However, this may take some time. Try to download them from a computer that has broadband access. This will be much quicker!

8. Print out the summary of your achievements for Module 4 (optional).

CHECKLIST

Did you...

☐ Log in to MoodGYM?

☐ Complete the Depression and Anxiety quizzes, and the Life Whacks and Mum and Dad exercises?

☐ Complete Module 4 (including all exercises)?

☐ Print off your summary sheet (optional)?
Week 5: MoodGYM Module 4
Week 6: MoodGYM Module 5

Relationships: Relationships and how they work out
Week 6: MoodGYM Module 5

GOAL

The goal for this week is to complete MoodGYM Module 5.

1. Log in to MoodGYM and click on 'Relationships' on the right-hand side of the screen.

2. Complete the Depression and Anxiety quizzes.

3. Work through and complete Module 5, including all exercises.

What happens in Module 5?

Module 5 is the last Module of MoodGYM and the shortest! You have almost finished the program!

This week you will:
- Learn about relationships and problem solving. Interpersonal relationships are often a source of great distress when they go wrong. MoodGYM tries to help in the process of growing from relationships.
- Develop problem solving skills.


Stages of relationship break-up
5. Print out your summary sheet for Module 5 (optional). Congratulations, you’re nearly at the end!

6. Complete the final Depression, Anxiety and Warpy Thoughts quizzes. These give you a final end-point indication of your feelings after having completed the program.

7. Wrap it up: The last few screens of MoodGYM overview the main concepts and give you an opportunity to provide feedback about the program.
1. Can anyone else use my user ID and password for MoodGYM?

No. Please keep your user ID number and password in a safe place. Don't hand it on to anyone else and please don't let anyone else visit BluePages or MoodGYM (even your family or friends) using your user ID, as this could spoil the study.

2. Can my family and friends use MoodGYM and BluePages?

Your family and friends are welcome to use MoodGYM and BluePages but please don't give them your login details. For BluePages, family and friends can visit http://bluepages.anu.edu.au/ecco206/. For MoodGYM, family and friends can visit http://moodgym.anu.edu.au and register as a new user.

3. What information are you collecting on the websites and will it be confidential?

During your visits to BluePages and MoodGYM you will fill out quizzes and exercises and visit various pages on the sites. The ECCO team can access information about your responses to the quizzes and visits to the different pages. However, all this information is processed using your user ID and not your name. These data are treated with the strictest confidence.

The conduct of the CMHR and Lifeline in relation to the personal information that we will collect during the ECCO Project is governed by the Privacy Act 1988 (Commonwealth). This Act requires that we treat all personal information given to us in the course of all our research projects in an ethical manner. This means that the ECCO team will not discuss anything you input with others outside the Project in a manner which could identify you. We understand that it is essential to the viability of the ECCO Project that you trust us, and if you have any questions about the confidentiality of your information or any other issues, please ring us on (07) 3250 1914.

4. What happens if I don't fill in all the questions in MoodGYM?

Some exercises (the Depression, Anxiety and Warpy Thoughts quizzes) require you to fill in the answers before you can continue in the Module. However, nothing will happen if you don't answer all the questions in the other MoodGYM exercises. Sometimes the answers you give in an exercise are used in a later exercise - so if you have skipped over some of the questions you may not find later exercises as interesting or useful. So, we recommend that you answer all the questions in the exercise.

5. Do I have to do all the MoodGYM Modules in order?

You will find that the MoodGYM site has been designed so that you can only move through the site in sequence. This means that you cannot skip a Module and move onto the next Module. This is to ensure that you get the best possible benefit from the program.
6. When I click to move to the next module, the screen says I'm too early.

MoodGYM is designed for you to complete one Module each week and doesn’t allow you to skip ahead. If you try and access a Module before the week you are supposed to do it in, the program will display an error message saying you’re too early.

7. Can I go back and change my answers if I put in a wrong one?

You can change your answers to any of the questions in the Module that you are in at the time. However once you start on a new Module then your answers from the previous Modules are 'locked in', and can't be changed. If you want to go back and change your answers in the Module that you are in, then use the NEXT and BACK buttons on the right side of the screen to navigate your way through MoodGYM.

8. Everytime I click on the NEXT button or try to log in to MoodGYM, it takes me back to the login screen.

This could be a number of things:
1. Check that you have 'cookies' enabled. To do this, search the 'help' index in your Internet browser for 'cookies' and you will find instructions for enabling cookies.
2. MoodGYM has 'timed-out'. If you leave MoodGYM inactive for about 20 minutes or longer (don't click any buttons), it will take you back to the login screen and you will need to log in again.
3. Try downloading a different web browser to run MoodGYM. MoodGYM works well on a web browser called 'FireFox', which is safe, free and you can download it from the Internet. Go to the webpage: www.mozilla.com and follow the instructions for downloading 'FireFox'.

9. I've lost my exercise answers!

This means that MoodGYM may have 'timed-out'. If you take longer than about 15-20 minutes to type answers in the exercises, MoodGYM sits 'inactive' and will take you back to the login screen if you try to save your answers. Try not to let MoodGYM stay inactive for this long by clicking around the program.

10. I can't save the answers to my exercises!

This can happen if MoodGYM has 'timed-out' (see above) or the answers you have typed are too long. The exercises have a limit of about 250 words.

11. What happens if I get caught in the workbook?

Unfortunately this sometimes happens. If you've tried clicking on the exit workbook button and you can't get back to the Module you were in, go to the bottom of the page and click on Main. Your current Module should be available on the right of the screen and just click NEXT until you get back to the page you were last working on. If you still can't get out of the workbook mode or you get caught in the workbook again, we recommend that you exit MoodGYM and re-enter the program.

12. Still having trouble using MoodGYM or BluePages?

If none of the information in this section helps with the problems you are experiencing, please e-mail us on ecco@anu.edu.au or call the ECCO project staff on (07) 3250 1914, and we will be more than happy to help.
13. I'm ready to move to the next Module but there is no button for this in the list on the right-hand side of the screen.

Once you finish a Module, the button for the next Module should appear in the list on the right-hand side of the screen. If you don't see a button, this may mean that you haven't properly finished the previous Module. The summary screen at the end of each Module signals that you've finished.

14. Why are some screens in MoodGYM blank?

Many of the pages in MoodGYM use 'Flash Player' to display graphics and animations. If you see a page that doesn't seem to be loading properly, you probably don't have Flash installed on your computer. You can download Flash for free at http://www.macromedia.com/downloads/.

15. What can I do if my connection is too slow?

If you find the sites too slow you may prefer to use a computer with a fast connection (broadband access). You can find computers with broadband access in libraries and Internet cafes.
This research is a collaborative project between Lifeline Australia and the Centre for Mental Health Research, The Australian National University.

If you have any questions or concerns regarding the website programs or the research project, you can contact ECCO Project staff directly:

By e-mail: ecco@anu.edu.au

By phone: (07) 3250 1914

This research has been granted approval from the Australian National University Human Research Ethics Committee. If you have any ethical questions or concerns, please contact the Human Ethics Officer, ANU on (02) 6125 7945 or email: Human.Ethics.Officer@anu.edu.au.

MoodGYM and BluePages were developed by the Centre for Mental Health Research at the Australian National University. (c) 2002.

Thank you for your participation.
Appendix 24

Telephone script (Internet only condition)
PROGRAM A

INITIAL CALL (Call 1)

Hi __________, my name is __________, and I am from the Lifeline - Australian National University ECCO Project. I am ringing up today to go over your program with you and to get you started.

Have you received the letter from us telling you what program you are in?

If No: You should receive a package in the mail in the next few days. [continue with script – modifying as needed]

So you are in Program A. This is the program where you will visit some websites once a week for 6 weeks. In the first week you will visit one website that has information about depression and the treatments that are available and then the following 5 weeks you will visit the second website that teaches you ways to prevent depression. I will call you again in 6 weeks to see how you went with the program.

With the letter you would have received a website manual. This manual is a step-by-step guide to the program and has all the information you need to know about getting on to the websites and what you need to do on the websites each week.

You would have also received a ‘Starting the Website’ survey. Have you had a chance to complete that yet?

If No: It would be great if you could please complete the survey and return it to us in the reply paid envelope before you start the program. These questions are designed to capture some of your feelings about starting the program.

Do you have any questions so far?

Ok, so your task this week is to look on website 1 which is called BluePages. Just flip to “week 1” in the website manual and you will find all the instructions you need to get onto the site. Would you like me to go through Week 1 of the manual with you, to help you get started?

If YES: Outline the log on procedures (www.bluepages.anu.edu.au/ecco###) and then highlight the sections to visit (‘About BluePages’, ‘Symptoms’, ‘Treatments’, ‘Help and Resources’).

If you have technical difficulties any time throughout the project, there is a section at the back of the manual that talks about common technical difficulties you may experience, but if you still find that you are having difficulties you can email or phone the project coordinator. The contact details should be in your manual.

So I will call you again in 6 weeks time, which will be ____________________________

Thank you very much for participating. We really appreciate your help with this project. And hope that you find your involvement interesting and rewarding.

Remember if, at any time, you have any personal concerns that you would like to discuss with someone, you can call the Lifeline crisis line anytime.
Week 7 Call: Wrap up program

Hi __________, its __________ from the Lifeline - Australian National University ECCO project. It has been six weeks since you started the program and I am calling today to wrap up the program and see how you went. Did you get to complete the program?

If complete some or all of the program; continue with script; modify as needed

If not yet completed Module 5 (the last module) for this week; How about I ring you up in about an hour or sometime later today (or on another support shift) when you have had a chance to look at it. Would you like to make a time? ____________________________

If did not complete any of the program; skip questions and let the participant know about the survey in the post; modify as needed.

Q1 Did you get to complete all of the tasks in the 6-week program? ____________________________

Q2 What did you think of the program overall? ____________________________

Q3 Was there any particular part of the program (module, exercise, content) that you liked most? ____________________________

Q4 Was there any particular part of the program you liked least? ____________________________

Thank you so much for your help with the project for these six weeks. I hope you found your involvement interesting and rewarding. Your involvement will certainly help us to find out more about the programs that may be help callers to Lifeline.

In the next few days you should receive a survey in the post. It would be really great if you would please complete the survey and return it to us as soon as possible. This survey will help us find out how you have been going over the past six weeks and also help us to evaluate how helpful the program has been for you. You will also receive a survey from us in 6 months time and again in 12 months time, to help us find out how you have been going since finishing the program.

Thank you.

Notes for participants who do not complete the program at all or did not complete some of the modules

Some participants may express concern or distress that they were not able to complete the program. That’s ok. We understand that sometimes it is difficult to find time to be involved in a program like this and that circumstances can change. We really do appreciate the efforts the participant has made for the project so far.

Can I still complete the program later when I have time?

At the moment, if you haven’t completed some modules / any of the program, the modules will be closed as they are only available for the six weeks of the program. We can reopen these modules for you, however each module that you haven’t completed will only be available for 1 week (as was the case during the program). For example, if you were up to Module 3, Module 3 will be available for 1 week starting from tomorrow, Module 4 will then be available the following week and Module 5 will be available the week after that.

Which module were you up to (so we can open up the uncompleted modules): ____________________________

Do I still need to fill in the survey?

Even if you haven’t completed the program yet it will still be really helpful to us if you completed the survey that we post out, so that we can find out how you have been going over the past 6 weeks.
Appendix 25

Telephone script (Internet plus tracking condition)
PROGRAM B

INITIAL CALL (Call 1)

Hi __________, my name is __________ and I am from the Lifeline - Australian National University ECCO Project. I am ringing up today to go over your program with you and to get you started.

Have you received the letter from us telling you what program you are in?

IF NO: You should receive a package in the mail in the next few days. [continue with script – modifying as needed]

So you are in Program B. This is the program where you will visit some websites once a week for 6 weeks. In the first week you will visit one website that has information about depression and the treatments that are available and then the following 5 weeks you will visit the second website that teaches you ways to prevent depression. I will also be calling you each week of the program to see how you are going with the websites.

With the letter you would have received a website manual. This manual is a step-by-step guide to the program and has all the information you need to know about getting on to the websites and what you need to do on the websites each week.

You would have also received a ‘Starting the Website’ survey. Have you had a chance to complete that yet?

IF NO: It would be great if you could please complete the survey and return it to us in the reply paid envelope before you start the program. These questions are designed to capture some of your feelings about starting the program.

Do you have any questions so far?

Ok, so your task this week is to look on website 1 which is called BluePages. Just flip to “week 1” in the website manual and you will find all the instructions you need to get onto the site. Would you like me to go through Week 1 of the manual with you, to help you get started?

IF YES: Outline the log on procedures (www.bluepages.anu.edu.au/ecco#h#f) and then highlight the sections to visit (‘about BluePages’, ‘Symptoms’, ‘Treatments’, ‘Help and Resources’).

If you have technical difficulties any time throughout the project, there is a section at the back of the manual that talks about common technical difficulties you may experience, but if you still find that you are having difficulties you can email or phone the project coordinator. The contact details should be in your manual.

So I will call you again next week. Is this time still a good time to call you each week?

IF NO: Arrange another time with them (that coincides with another support worker shift)

Thank you very much for participating. We really appreciate your help with this project. And hope that you find your involvement interesting and rewarding.

Remember if, at any time, you have any personal concerns that you would like to discuss with someone, you can call the Lifeline crisis line anytime.
WEEK 2 Call: Review BluePages

Hi ____________, its ______________ from the Australian National University ECCO project. I’m just ringing up to see how you went with the BluePages website and to start you on the second website. Did you get a chance to look at the BluePages website this week?

If NO: How about I ring you up in about an hour or sometime later today (or on another support shift) when you have had a chance to look at it. Would you like to make a time?

Great! Now I just want to ask you some questions to find out how you went with the site and what you thought about it.

Symptoms section
Q1 Did you have a look at the symptoms section?

Q2 Were there any symptoms that you didn’t know were common to someone who is depressed?

Q3 In the famous people’s section, were you surprised to learn that some of these people had experienced depression (e.g., Dawn Fraser, Prince Charles, Buzz Aldrin, Mozart)?

Q4 Having read the symptoms section, do you think you now know more about the symptoms and signs of depression and could recognize if you or someone you cared about was depressed?

Treatments section
There was also a treatments section which talked about the medical, psychological, and alternative treatments for depression.

Q5 Were there any medical treatments you found interesting?

Q6 Were you surprised about any of the ratings of the medical treatments?

Q7 Were there any psychological treatments you found interesting?

Q8 Were there any alternative treatments that you found interesting?

Q9 Were you surprised about any of the ratings of the alternative treatments?

Help and Resources section
Q10 Did you look in the help and resources section?

Q11 Having had a look at this section, would you know who or where to go to for help with depression?

Q12 Overall, did you find the information on the site interesting and helpful?

Excellent! I’m glad to hear that you found the site interesting and were able to find out some useful information. Ok, now that you have read some information about depression, the next part of the program is to start on the second website which you will be visiting for the rest of the 5 weeks of the program. It is called MoodGYM and this website is designed to teach you techniques to prevent depression. In Week 2 of the manual you will find instructions to help you get onto MoodGYM.

You will need a username and password to access MoodGYM, which is in your manual. Do you know what your username and password is?

Username: ___________________ Password: ___________________

This week you need to complete Module 1. If you are having any troubles or not sure what to do remember to look in the manual, and if you are still having trouble you can call the project coordinator.

I will call you again this time next week to see how you went. Good luck!
WEEK 3 Call: Review MoodGYM Module 1

Hi __________, it's __________ from the ECCO project. I'm just ringing up to see how you went with Module 1 of MoodGYM and to get you started on Module 2. Did you get a chance to do Module 1 this week?

IF NO: How about I ring you up in about an hour or sometime later today (or on another support shift) when you have had a chance to look at it. Would you like to make a time?

Great! I just have a few questions to see how you went with the Module.

Q1 Did you fill in the quizzes about anxiety and depression (these were the very first quizzes you would have filled out, at the start of the module)?

Q2 What range did it say you were in for the depressive symptoms (low, middle, high)?

Q3 And what about for the anxiety symptoms - low, middle or high range?

Q4 Do you think that it gave you accurate feedback about this?

There were a couple of exercises in the module.

Q5 One of them was the Auto Talk Quiz (the quiz where you identified what warpy thoughts you have), did it say you had many warpy thoughts?

Q6 What were some of your warpy thoughts (things always go wrong for me, I'm a fraud, I'm a failure, nobody likes me etc)?

Q7 With the Bad Hair Day exercise, were you able to identify situations that made you angry or upset? (e.g., got a bad haircut – looked awful and ugly).

Q8 Overall, were you able to get a sense of what the Module was about?

(This module was aimed at helping you to understand your thought patterns and emotions and to start to learn about some of your own vulnerabilities)

Q9 Do you think that this module has started to help you see things more clearly?

Q10 Did you get a chance to do the homework exercise over the week (3 Encounters of an Emotional Kind)?

If NO: Don't worry, but it may be a good idea to do this before you start Module 2. Once you start Module 2 you can still go back and have a look at Module 1 but you won't be able to complete any of the exercises (the system closes down the data). So now is your last chance.

Q11 How did you go with it - were you able to note down some events that happened over the week and identify your thoughts and feelings?

IMPORTANT – PLEASE ALSO ASK THESE TWO NEW QUESTIONS:

What effect, if any, has the program had on you so far?

Do you have any concerns or worries about the program?

That's great! It sounds like you went well with Module 1. OK, so your task for this week is to complete Module 2. In the past, others have found that this module takes a little bit longer to complete; so don't worry if you find it is taking you a bit longer. The "Week 3" section in the manual has all the information about getting onto Module 2.

I will phone you again this time next week to see how you went.
Hi, it's from the ECCO project. I'm just ringing up to see how you went with Module 2 of MoodGYM and to get you started on Module 3. Did you get a chance to do Module 2 this week?

If NO: How about I ring you up in about an hour or sometime later today (or on another support shift) when you have had a chance to look at it. Would you like to make a time?

Great!

Q1 How did you find the module this week – was it difficult to follow the material as it was set out?

Q2 Were you able to get an understanding of what the module was about?

(The aim of this module was to start to introduce you to ways to change your thoughts patterns – contest your warpy thoughts)

Q3 This module was a bit longer than the first one. How long did it take you to complete it?

Q4 Did you get to complete all of it?

One part of the module was to read about the types of warped thoughts (e.g., all or none thinking, jumping to conclusions, overgeneralization etc) and then there was an exercise to identify the types of warped thinking in your own thinking.

Q5 How did you go with this exercise - were you able to identify the types of warped thinking in your own thinking?

Q6 What were some of your types of warped thinking?

Q7 And then how did you go with the exercise - 'unwarping the warp with straight talking' (It brought back the exercise from the last module, Bad Hair Day, where you identified situations that made you angry and upset and it asked you to contest your thinking from these situations).

This module also talked a little more about areas of vulnerability – had to complete the Warpy Thoughts test again.

Q8 Do you remember anything from the module about your areas of vulnerability, i.e. the need for approval, the need to be perfect?

Q9 Do you think the feedback you received was relevant to you?

Q10 Did you complete the last exercise (Being Nice to Yourself) to complete over the week?

If NO: We recommend that you do that before starting Module 3. Once you start Module 3 you won't be able to go back and add or change answers in previous Modules.

Q11 Do you have any questions so far?

Q12 Do you have any comments that you wish to send through to the investigators?

Ok. Well it sounds like you are doing a great job. Module 3 should be interesting. It deals with ways to change your thinking patterns without necessarily doing all that checking and contesting.

By the way, I really want to thank you very much for your involvement in the project to date. We really appreciate you taking the time to help us with the project.

OK To get on to Module 3, it is the same as last week (you're probably a pro at getting onto MoodGYM by now!). Just check out "Week 4" in your manual for instructions for completing Module 3.

I will speak to you next week.
Hi __________, it's __________ from the ECCO project. I'm just ringing up to see how you went with Module 3 of MoodGYM. Did you get a chance to do it this week?

If NO: How about I ring you up in about an hour or sometime later today (or on another support shift) when you have had a chance to look at it. Would you like to make a time?

OK, so Module 3 introduced methods to modify your thinking and also looked at ways to improve in areas where you might be at risk.

Q1 Overall, how did you go with the module - was it easy to understand and follow the material?

Q2 How long did it take you to complete the module?

Q3 Did you complete all of it?

One of the aims of this module was to look at some methods to attack your warped thoughts including taking the role of the reporter, positive self-interpretations, setting up experiments to test.

Q4 Did you try the reporter's notebook exercise - how did you like it?

Q5 What about the positive self-interpretations method - how did you go with that?

Q6 In the surveying the scene exercise, did you ask three other people for their views on an event that made you upset?

Q7 How did you go with the really long questionnaire that asked you about the kind of activities you do?

Q8 What were the results of this questionnaire for you? Average frequency score: _____ Average pleasantness score: _____

Q9 What were the activities you enjoy and do frequently?

Q10 What were the activities you enjoy but don’t do as frequently?

Q12 Did you find the activity plan helpful to organise your day to include more pleasant activities?

Q11 What did you like most about this module?

OK, the next step is to complete Module 4. You're doing really well and are nearly at the end of the program! Just flip to Week 5 in your manual for all the information about Module 4.

Thanks again for your participation.
I will talk to you again next week.
Week 6 Call: Review Module 4

Hi [Name], it's [Date] from the ECCO project. I'm just ringing up to see how you went with Module 4 of MoodGYM. Did you get a chance to do it this week?

If NO: How about I ring you up in about an hour or sometime later today (or another support shift) when you have had a chance to look at it. Would you like to make a time?

Q1 Overall, how did you like this module?

Q2 How long did it take you to complete this module?

This first part of this module looked at stressors in your life and how they affect you.

Q3 Did the material on stressors make sense to you?

Q4 Did this material relate to you and your situation?

Q5 How did you go on the life whoacks questionnaire (the one that asked you about stressful events in the last 12 months)?

Q6 Did you find the results and feedback for this questionnaire helpful?

Q7 Did you do up a plan of action for changing your 'life whoacks'/stressful events?

The second part of this module looked at relationships with parents.

Q8 Did you go through the section (this section was optional)?

If YES: Did you find this section of the program useful?

And then the last part of the module introduced some relaxation procedures to help you de-stress.

Q9 Did you try one of the relaxation methods — which one did you try?

Q10 Did you find [insert relaxation method they tried] helped you to relax?

Q11 Was there any particular part of the module that you liked most?

Q12 Was there any particular part of this module that you liked least?

That is great! You're now on to the last module of MoodGYM. Well done! It takes a lot of work to complete the modules each week. We really appreciate you efforts.

Just flip to Week 6 of the manual for all the details on Module 5.

And I will talk to you again next week, for the final time.
Week 7 Call: Review Module 5

Hi ________, its ________ from the ECCO project. I'm just ringing up to see how you went with Module 5 of MoodGYM and to wrap up the program with you. Did you get a chance to do it this week?

If NO: How about I ring you up in about an hour or sometime later today (or on another support shift) when you have had a chance to look at it. Would you like to make a time?

So Module 5 was the last module of MoodGYM and it was looking at relationships and how they work.

Q1 How did you go with this module - was it easy to understand the material?

Q2 This module was the shortest of MoodGYM, how long did it take you to complete?

Q3 Did you find the material on coping with relationship break-ups was relevant to you?

The module also looked at a problem solving strategy.

Q4 How did you go with learning this strategy (identify, generate, evaluate, rate, put)?

Well, now that you have finished MoodGYM

Q5 What did you think of the program overall?

Q6 Was there any particular part of the program (module, exercise, content) that you liked most?

Q7 Was there any particular part of the program you liked least?

Thank you so much for your help with the project for these six weeks. I hope you found your involvement interesting and rewarding. Your involvement will certainly help us to find out more about the programs that may be help callers to Lifeline.

In the next few days you should receive a survey in the post. It would be really great if you would please complete the survey and return it to us as soon as possible. This survey will help us find out how you have been going over the past six weeks and also help us to evaluate how helpful the program has been for you. You will also receive a survey from us in 6 months time and again in 12 months time, to help us find out how you have been going since finishing the program.

Thank you.
Appendix 26

Telephone script (Tracking only condition)
PROGRAM C

Initial Contact (Call 1)

Hi __________, my name is __________ and I am from the Lifeline - Australian National University ECCO project. I am ringing up today to go over your program with you.

Have you received the letter from us telling you what program you are in?

If NO: You should be receiving a letter in the mail in the next few days. [continue with script]

So you are in Program C. This is the program where a project support person will ring you every week for 6 weeks to discuss lifestyle factors that some people believe may put individuals at risk for depression. So each week, starting from next week, I will call you and ask you about aspects of your lifestyle, such as activity level, nutrition, career and health. And each week we will discuss a different topic. We don’t know whether these factors really do prevent depression. The aim of talking to you and asking you questions about your lifestyle is to help you reflect on your lifestyle and consider whether these factors may be important to you.

Do you have any questions about that?

OK, so I will call you this time next week. Is this still a good time to call you each week?

If NO: Arrange another time with them (that coincides with another support worker shift).

Thank you very much for participating. We really appreciate your help with this project. And I hope you find your involvement interesting and rewarding.

Remember if, at any time, you have any personal concerns that you would like to discuss with someone, you can call the Lifeline crisis line anytime.

I will talk to you next week.
Week 2 Call: Activities

Hi, it's ________ from the Lifeline - Australian National University ECCO project. I am calling for the first of the weekly calls. Today we are going to be discussing the kinds of activities you engage in, both physically and mentally. It has been suggested that the sorts of activities that people do (or don't do) may put them at risk for depression. So I am going to be asking you some questions about the physical and mental activities you engage in and then at the end I will ask you to think about how your activity level may affect the way you feel.

If the participant reveals a recent illness or physical disablement remember to take this into consideration when asking the questions. Perhaps ask the participant to think about what they would normally do.

Firstly we are going to look at how often you take part in sports or activities that are of varying energetic levels. Let's start with:

Q1 How often do you take part in activities that are Mildly energetic (e.g., walking, gardening, general housework, playing pool)?

3 or more times a week _______  Once or twice a week _______  1-3 times a month _______  Never/hardly ever _______

Q2 When you take part in these activities, how long do you spend doing them at one time?

Q3 How often do you take part in activities that are Moderately energetic / Vigorous (e.g., mowing the lawn, swimming, bike-riding, hiking, going to the gym, playing sports)?

3 or more times a week _______  Once or twice a week _______  1-3 times a month _______  Never/hardly ever _______

Q4 When you take part in these activities, how long do you spend doing them at one time?

Q5 When you engage in physical activities, what are some of the reasons why you do (e.g., to feel good, improve health, reduce stress, socialise, control weight)?

OK, now we are going to move on to mental activity.

Q6 I'm going to read out a list of activities and I'd like you to let me know which of these you have done in the last month.

| Craftwork (sewing, knitting, patchwork) | YES / NO | Read information books (journals, newspaper) | YES / NO |
| Woodwork (making/restoring furniture)   | YES / NO | Played card-games                              | YES / NO |
| Metalwork (restoring cars, machines)    | YES / NO | Done artwork (painting, sketching, movie-making) | YES / NO |
| Taken a course/seminar                 | YES / NO | Practised a musical instrument                 | YES / NO |
| Gardening                              | YES / NO | Taken photographs                              | YES / NO |
| Spent time with animals                | YES / NO | Belonged to clubs                              | YES / NO |
| Read fiction books (novels, stories, poems) | YES / NO | Solving a problem puzzle/crosswords             | YES / NO |

Q7 What are some of the reasons why you engage in these activities (e.g., enjoyment, like to learn new things, satisfaction of completing tasks)?

Q8 Are there any activities, either physical or mental, that you would like to do more/less of?

Now I would like to ask your thoughts on engaging in physical and mental activities and their relationship to depression.

Q9 Would you consider your activity levels have any effect on your mental well-being/how you feel (could be positive or negative)?

Q10 In what way do you think your activity levels affect your well-being?

Tip: Your role in this program is like a facilitator - help the participant to reflect on their activity levels and whether this effects how they are feeling.

Tip: If the participant is having difficulty answering the question, reflect and paraphrase what the participant has already said to you to help get them started.

That is all we have to discuss this week. Thank you very much taking the time to answer the questions and discussing your activity with me.

I will call you again next week and we will discuss the next topic.
Week 3 Call: Education

Hi, it's _________ from the ECCO project. I am calling for the second of our weekly calls and today we are going to discuss education. So, like last week, I will ask you some questions about your education and then at the end I will ask you to reflect on what effect your educational experiences have on your mental well-being.

Firstly, I will begin by asking you about your formal education.

Q1 What is the highest level of school education that you have achieved (e.g., Year 10, Year 12)? __________________________

Q2 Did you enjoy your schooling experience? ____________________________________________________________

Q3 What is the highest level of post-secondary / tertiary education you have completed (certificate, diploma, bachelor degree)? ____________________________________________________________

If have completed higher education or currently studying:

What course was/is it? ____________________________________________________________

Was/Is this part-time or full-time? ____________________________________________________________

Did/are you enjoying it? ____________________________________________________________

If have not completed any higher education:

Have you ever thought about / wanted to take a course?, If so, what kind of course? ____________________________________________________________

Q4 Do you have any other certificates/qualifications (e.g., First Aid Certificate, work-related computer courses)? ____________________________________________________________

I now want you to think about your informal education.

Q5 Have you been involved in any informal activities (such as learning a new hobby – jewellery-making, car mechanics short course)? ____________________________________________________________

IF YES: What hobbies were they and did you enjoy them? ____________________________________________________________

IF NO: Are there any hobbies you would like to get involved in? ____________________________________________________________

Q6 Have you attended any information seminars (e.g., how to budget your money, personal development)? ____________________________________________________________

Now, having thought about your schooling and the courses/hobbies that you have done, I would like to ask you to reflect on your education and the role in may play in affecting the way you feel.

Q6 Do you think that the educational activities you have engaged in have any effect on your mental well-being? ____________________________________________________________

Q7 In what way has your education had a [positive/negative] effect on your well-being? ____________________________________________________________

TIP: If the participant is having difficulty answering these questions, reflect and paraphrase what the participant has already said.
TIP: Participants may find that some of the topics may not be very relevant to how they are feeling. That’s okay.

Great! That’s all we have to talk about for this week. Thank you for talking to me about your education and for participating in the project. I will talk to you again next week.
**Week 4 Call: Social and Family Relationships**

Hi, it's _______ from the ECCO project. Today we are going to be talking about social and family relationships. The sorts of social experiences and social support that you have had or continue to have may be important in preventing depression. So I will be asking you some questions about your social support networks and then we can discuss what role your social relationships play in affecting how you feel.

Q1 First, how would you describe your immediate family relationships (e.g. relationship status, any siblings)?

Q2 Do you have children? If so, what are their ages?

Q3 To what extent are you responsible for childcare in your household (including activities such as making meals, organising activities, supervising homework) discipline?

- Fully responsible
- 75% responsible
- 50% responsible
- 25% responsible
- Not at all responsible

Q4 To what extent are you responsible for financial management in your household (including paying bills, saving, planning investments or priorities in money use)?

- Fully responsible
- 75% responsible
- 50% responsible
- 25% responsible
- Not at all responsible

Q5 To what extent are you responsible for providing money for your household?

- Fully responsible
- 75% responsible
- 50% responsible
- 25% responsible
- Not at all responsible

Q6 To what extent are you responsible for the buying and preparation of food in your household?

- Fully responsible
- 75% responsible
- 50% responsible
- 25% responsible
- Not at all responsible

Q7 How old were you when you first moved away from your parents?

Q8 Do you have a partner or friends that you tend to do things with?

Q9 How often do friends/family make you feel cared for:

- Often
- Sometimes
- Rarely
- Never

Q10 How often do they express an interest in how you are doing:

- Often
- Sometimes
- Rarely
- Never

Q11 How often do friends/family make too many demands on you:

- Often
- Sometimes
- Rarely
- Never

Now that we have talked about your social experiences and social networks, I would like to get your thoughts on how they may be related to how you are feeling.

Q12 Do you think the level of family and social support you have has an effect on your well-being? How so?

---

**TIP: Rather than providing advice, my role in this program is to help you reflect on your lifestyle and clarify what areas of your situation might be affecting how you are feeling.**

That is all we have to talk about today. That was great! I really want to thank you very much for your involvement in the project to date. We really appreciate you taking the time to help us with the project.

Next week is the 4th call out of 6. I will talk to you again then.
Week 5 Call: Career and Work Relationships

Hi ______, it’s ______ from the ECCO project. Today we are going to be discussing career and work relationship. I’m going to ask you some questions about your work relationships and ask you to think about whether these work experiences might have an effect on the way you feel.

Working at home or looking after children is also a ‘career’, so I will ask you about this as well. In this case the organization I’m referring to is your home.

Remember to fit the questions to the participant’s situation. If the participant is currently unemployed perhaps ask them to think about the last time they were employed.

Q1 How would you describe your current employment status?
   Employed full-time   Employed part-time   Unemployed   Looking for work   Not in the labour force

Q2
If not in the labour force:
   What is your main activity: Home duties   Caring for children   Retired or voluntarily out of work force   Studying
   Caring for an aged or disable person   Recovering from illness   Voluntary work   Other ________

OR What type of job are you looking for? __________________________________________

If in the labour force:
   What is your usual or main job? __________________________________________

Now thinking about your current job / previous employment?

Q3 Do you enjoy good work relationships?

Q4 How many people work in your organization? __________________________

Q5 What aspects of the job do you like? __________________________

Q6 What aspects of the job do you dislike? __________________________

Q7 Do you have to deal with the public in your job at all? __________________________
   IF YES: Do you find this rewarding? __________________________

Q8 How do you handle stress in the workplace? __________________________

Q9 Does your organization have a policy about how to handle stress in the workplace? __________________________
   Are you familiar with any of these policies and if so what are they? __________________________

Q10 How important is your job to you? __________________________

Q11 How do you see your career in general? __________________________

Q12 Do you think you would prefer to work from home or from outside the organization? __________________________

Q13 Have you ever had a major period of unemployment? __________________________
   IF YES: How did this affect you? __________________________

Q15 Overall, what role do you think your career/work experiences have played in effecting your mental well-being? __________________________

TIP: Provide a concluding comment to reflect and summarise what the participant has said.

That is everything we have to talk about today. Thank you very much. I will ring you again next week.
Hi _____, it's _____ from the ECCO project. Today I am calling for the second last of our weekly discussion. The topic for this week is physical health. So, as usual, I'm going to firstly ask you some questions about your physical health and then at the end discuss your thoughts on the role that physical health may play in affecting your mental well-being.

Please let me know if you would prefer not to discuss any particular issue that I may ask about.

I'm going to read through a list of medical conditions.

Q1 Do you have/have had any of the following?
- Cancer
- Arthritis
- Diabetes
- Epilepsy
- Cataracts or other eye disease
- Thyroid disorder
- Asthma, chronic bronchitis or emphysema
- Stroke/heart condition

Q2 Do you have any other major health/medication conditions?

Q3 In general, would you say your health is: excellent very good fair poor

Q4 In the last 4 weeks, were you limited in the kind of work or other activities as a result of your physical health?

Q5 In the last 4 weeks, how much did pain interfere with your normal work/daily activities?
- Not a bit
- A little bit
- Moderately
- Quite a bit
- Extremely

Q6 In the past month, have you taken or used any pain relievers such as aspirin, codeine, Panadol or herbal remedies? YES / NO

Now I'm going to ask you about your alcohol and smoking habits.

Q7 How often do you have a drink containing alcohol?

If don't drink: Are there any specific reasons why you don't drink (is it the taste, for instance)?

Q8 Do you currently smoke?

Now that we have looked at your physical health and the medical conditions that you have.

Q9 Do you think that your physical health has an effect on your mental well being? How so?

Tip: This discussion is about helping you to reflect on and clarify what areas of your situation might be affecting the way you feel.

Tip: If the participant is having difficulty answering these questions, reflect and paraphrase what the participant has already said.

Thank you very much for our discussion today. I will ring you again next week and this will be the last week of discussions.
Week 7 Call (Final Call): Nutrition

Hi _____, it’s _____ from the ECCO project. Today I am calling to discuss our last topic, nutrition or diet, and then I will wrap up the program with you. There has been a suggestion that nutrition and diet can have an effect, not only on our physical health but also on our mental well-being. So, as usual, I will ask you some questions about your nutrition and then I will ask you whether your nutrition affects your mental well-being.

Q1 In the last month, have you taken any vitamins or mineral supplements?

What kind of mineral or vitamin was that?

Q2 Are you on a special diet?

Q3 Have you ever sought nutritional information from:

A dietician _____  A GP _____  A magazine, book, or newspaper article _____

Q4 How often do you eat cereals:

Never _____  Rarely _____  A few times a month _____  A few times a week _____  A few times a day _____

Q5 How often do you eat milk products:

Never _____  Rarely _____  A few times a month _____  A few times a week _____  A few times a day _____

Q6 How often do you eat meats:

Never _____  Rarely _____  A few times a month _____  A few times a week _____  A few times a day _____

Q7 How often do you eat seasonal vegetables and fruits:

Never _____  Rarely _____  A few times a month _____  A few times a week _____  A few times a day _____

Now that we have looked at your nutrition and the kinds of food that you eat.

Q8 Overall, do you find that your moods are effected by what you eat? How so?

TIP: Provide a concluding comment to reflect and summarise the participants view.

That’s all the questions I have for nutrition. And that is the end of the program. At the start I would just like to say how glad and pleased I am that you have taken my phone calls each week and discussed these topics with me.

Q13 Overall, what did you think of the 6 week program?

Q14 Was there any particular part of the program you liked most?

Q15 Was there any particular part of the program you liked least?

Thank you very much for your help with the project for these 6 weeks. I hope you found your involvement interesting and rewarding. Your involvement will help us to find out more about the programs that may help callers to Lifeline.

In the next few days you should receive a survey in the post. It would be great if you would please fill it in as soon as possible and return it to us. This survey will help us find out how you have been going over the past 6 weeks and to evaluate how helpful this program has been for you. We will also be posting you out a survey in 6 months and 12 months time to find out how you have been going since finishing the program.

Thank you!
Appendix 27

Telephone script (Control condition)
INITIAL CONTACT (Call 1)

Hi __________, my name is __________ and I am from the Lifeline - Australian National University ECCO Project. I am ringing up today to go over your program with you.

Have you received the letter from us telling you what program you are in?

If NO: You should be receiving a letter in the mail in the next few days. [continue with script]

So you are in Program D. This is the program where you will be visiting some websites once a week for 6 weeks, however you will start on these websites in about 6 months time rather than straight away. This is because we can't start everyone at the same time. So you can just continue with everything as normal. And we will keep in contact with you during the project and let you know what is happening.

Do you have any questions?

So I will call you in 6 weeks to find out how you have been going and let you know how the project is progressing, which will be:

Thank you very much for participating. We really appreciate your help with this project.

Remember if, at any time, you have any personal concerns that you would like to discuss with someone, you can call the Lifeline crisis line anytime.

Some participants may express disappointment in being assigned to Program D, as they may have been hoping to receive some help straight away. Here are some responses to help answer any questions or concerns participants may have about this program.

I am disappointed to be in this program. I was hoping to receive some help for the problems that I am experiencing now.

I understand your concern. Because this is a research project and we want to compare programs with each other to find out which ones are most helpful for people that means that we have to randomly assign people to the program they receive and whether they start straight away or in 6 months. Unfortunately I am not able to change the program that you have been given. While you are waiting to start the program you are still a very important part of the project and we are still interested in finding out how you are going.

What happens if I am feeling better in 6 months time?

That's ok. It would still be great for you to be involved and do the website program. Even if you are feeling better, the program could still be of benefit to you. Of course, it is totally up to you to choose whether you go on to do the program.

Do I need to fill in the questionnaires – even though I am not doing the program / am feeling better?

It would be much appreciated and very helpful to us if you filled out the questionnaires. Even though you are not doing the program yet, or if you do start to feel better, it will still be helpful to us to find out how you have been going. We will keep in contact with you and let you know when the questionnaires will be sent out. We will also contact you in 6 months time to get you started on the websites.
Week 7 Call - Final Contact / Progress Update

Hi ______, it's ______ from the ECCO project. It has been six weeks since I last spoke to you and so I just wanted to let you know that in the next few days you should receive a survey in the past. It would be really great if you would please fill it in as soon as possible and return it to us. This survey is to help us find out how you have been going over the past six weeks.

Thank you very much for participating in the project. We really appreciate you taking time to help us with the project. Your involvement will help us to find out more about programs that may help callers to Lifeline. I will be in contact with you in about 6 months time to get you started on the website program.