Resilience training in the workplace: The role of trainee motivation, transfer climate and practise in the prevention of psychological injuries

Christopher James Horan

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

Final Submission May 2017
Declaration

I declare that this thesis is the product of my own work carried out under the supervision of Professor Kate Reynolds, Professor Don Byrne and Doctor Linda Bilich. Where other authors were involved in the work I declare that I have clearly stated my contribution. I affirm that this thesis is in accordance with The Australian National University Guidelines for higher degree research.

________________________________________
Christopher James Horan

May 2017
Abstract

Chronic stress is a major problem in organisations and police are at particular risk due to regular exposure to traumatic stressors on the job. This research was initiated by the New South Wales Police Force (NSWPF) to address this problem. It focuses on the development and evaluation of resilience-training programs. Resilience training aims to equip participants with coping skills that can help them to “bounce back from adversity” and be resilient. Key research questions included: Can a brief training course enhance the long-term resilience of police recruits and prevent future psychological injuries? What is the most appropriate resilience training design? What factors are related to better outcomes for resilience training?

Drawing on a broad literature review covering stress, policing, coping, emotion regulation, developmental psychopathology and occupational health psychology, we designed a resilience-training program that was universal (to be provided to all officers), preventative (designed to prevent future injuries), and targeted to address transdiagnostic factors that were related to the development of a range of stress-related pathology (especially PTSD and depression). The program was informed by an understanding of risk and protective mechanisms that shape the impact of stressors together with the literature on stress interventions. In order to reduce experiential avoidance and promote coping flexibility, the program incorporated content from Acceptance and Commitment Therapy (ACT).

The research program involved three studies. Studies 1 and 2 were conducted with recruits at the NSWPF Academy while study 3 was conducted with 3rd year psychology students. The program design was updated between the studies to address issues that were identified, and to explore study-specific hypotheses. In line with the existing literature, in study 1 we found that the targeted mechanisms of change accounted for a large amount of variance in the mental health outcome measures indicating that the intervention was directed at important factors that serve to build resilience. However, findings of high levels of
attrition, poor training engagement and poor knowledge retention demonstrated problems with training transfer. Program changes were made to address these problems in study 2, with an emphasis on motivating practice through coaching calls and a focus on stages of change. Key findings were that participants who practised the skills during the coaching period experienced significant reductions in stress, \( t(14) = 3.25, p < .01 \), PTSD symptoms, \( t(14) = 2.46, p < .05 \), and a significant increase in mindfulness, \( t(14) = -3.05, p < .01 \).

Study 3 built on studies 1 and 2 with a particular focus on homework, stages of change and the replacement of coaching calls with performance aids (in the form of both a Smartphone App and traditional workbook). There were some promising findings, with improvements across time, including a reduction in experiential avoidance, \( t(53) = -2.01, p = .05 \), and increases in values progress, \( t(53) = 2.06, p < .05 \), and instrumental support, \( t(53) = 2.09, p < .05 \). The participants’ change pathway was found to significantly moderate the impact of the training program on practice amount, \( F(2,49) = 7.17, p < .05 \), anxiety, \( F(2, 49) = 4.04, p < .05 \), perceived stress, \( F(2,49) = 3.95, p < .05 \), resilience, \( F(2,49) = 6.05, p < .01 \), values progress, \( F(2,49) = 4.10, p < .05 \), with the biggest improvements in wellbeing mainly found for participants who were already in an action stage of change for stress management, followed by participants who moved into progress. While practice method was not found to impact on well-being scores, it was found to impact practice quality, \( t(35.11) = -2.65, p < .05 \).

In conclusion, it appears as if a brief training course can have positive outcomes but more work needs to be done to investigate long-term resilience; the resilience training design needs to be focused on the core constructs of coping and emotion regulation, protective mechanisms and training transfer; and better outcomes are achieved when the training motivates participants to progress along the stages of change and practice the skills. While there is more work to be done the research outlined in this thesis has contributed to moving resilience training forward.
Acknowledgements

“Sometimes our light goes out but is blown into flame by another human being. Each of us owes deepest thanks to those who have rekindled this light.” Albert Schweitzer

There are many people to whom I am grateful for helping keep my fire burning throughout my journey. Firstly, I would like to thank my co-supervisors Professor Kate Reynolds and Professor Don Byrne. In particular, thank you to Don for navigating how to get things done in the NSW Police Force, and for your feedback on the project design. Also, thank-you Kate for stepping up to supervise the thesis write-up after Don retired. I very much appreciate your patience, understanding and support during what has been a challenging few years! Additionally, I am grateful to Dr Linda Bilich for her support with the workshop design and facilitation in study 1, and to Alicia Franklin who helped with the redesign of the workshops in study 2 and who co-facilitated the workshops in studies 2 and 3. Secondly, I wish to acknowledge the time and energy of the leadership and students at the NSW Police Academy and the Australian National University Research School of Psychology, for whom this research would not have been possible. And last but not least, I would like to thank my family and friends who have been unwavering in their support over the last six years and for believing that I could do this.
Table of Contents

Declaration ........................................................................................................................................2

Abstract ...........................................................................................................................................3

Acknowledgements .......................................................................................................................5

Table of Contents ..........................................................................................................................6

List of Tables ...................................................................................................................................7

List of Figures ...................................................................................................................................9

CHAPTER 1: Defining the research problem and overview of the thesis.................................11

CHAPTER 2: Theoretical framework and program design..........................................................19

CHAPTER 3: Study 1 - NSW Police Pilot study (2011).................................................................57

CHAPTER 4: Study 2 - NSW Police Main Study (2012/13)...........................................................85

CHAPTER 5: Study 3 - ANU Psychology Students (2013)............................................................142

CHAPTER 6: Concluding Chapter..................................................................................................200

References......................................................................................................................................227

Appendix 1 Research Practicum....................................................................................................256

Appendix 2 Study 1 Materials

Appendix 3 Study 2 Materials

Appendix 4 Study 3 Materials

Appendix 5 Measures

List of Tables

Table 1. Participant characteristics at time 1 (study 1)………………………………………..62
Table 2. Program Outline - 2011 Pilot Study…………………………………………………….67
Table 3. Correlations and descriptive statistics for the overall sample at time 1 (study 1)…..72
Table 4. Multiple regression analyses predicting mental health measures (study 1)………73
Table 5. Descriptive Statistics and Repeated Measures ANOVAs for matched sample……77
Table 6. Feedback on the pilot training program from the follow-up calls (study 1)……..81
Table 7. Participant demographics at Time 1 (study 2)………………………………………101
Table 8. Program Outline - 2012/2013 Study………………………………………………103
Table 9. Correlations and descriptive statistics for matched sample at time 1 (study 2)…..110
Table 10. Multiple regression analyses predicting mental health measures (study 2)……..111
Table 11. Descriptive Statistics for matched sample at time 1, 2 and 3 (study 2)………..115
Table 11b. Baseline distress as a moderator of the impact of training……………………117
Table 12. Skills Practice by Stage of Change (time 2)………………………………………...119
Table 13. Skills Practice by Stage of Change (time 3)………………………………………...119
Table 14. Workshop feedback ratings (study 2)…………………………………………122
Table 15. Feedback on learning supports (study 2)………………………………………...124
Table 16. Participant demographics at time 1 by practice group (study 3)………………..160
Table 17. Workshop Outline - ANU Study………………………………………………163
Table 18. Correlations and descriptive statistics for main variables at time 1 (study 3)......170

Table 19. Multiple regression analyses predicting outcome measures (study 3).............173

Table 20. Means, SD and Correlations for Training Variables (study 3).......................176

Table 21. Descriptive Statistics for the main variables at time 1 and 3 (study 3)...........183

Table 22. Analysis of Covariance statistics for change and homework scores .............186
List of Figures

Fig. 1. Transactional model of stress and coping………………………………………………25

Fig. 2. Study Timeline and participant completion (study 1)……………………………………61

Fig. 3. Overview of training effectiveness (study 1)………………………………………………98

Fig. 4. Study Timeline and participant completion (study 2)……………………………………100

Fig. 5. Means and 95% Confidence Intervals for Brief Cope Subscales (study 2)………..109

Fig. 6. Categorisation by stage at time 1 and Time 3 (study 2)………………………………118

Fig. 7. Practise levels in the supported and unsupported periods (study 2)…………………..118

Fig. 8. Practice by Time Interactions in the supported period (time 1 to 2) (study 2)…….120

Fig. 9. Practice by Time Interactions in the unsupported period (time 2 to 3) (study 2) …121

Fig. 10. Study Timeline and participant completion (study 3)……………………………..160

Fig. 11. App Screens for Stress Log and Coping suggestions (study 3)…………………..166

Fig. 12. Workbook Stress and Coping Log example (study 3)……………………………..166

Fig. 13. Means and 95% Confidence Intervals for Brief Cope Subscales (study 3)………171

Fig. 14. Categorisation by stage at time 1 (study 3)………………………………………..172

Fig. 15. Feedback ratings for the workshop (study 3)………………………………………..175

Fig. 16. Ease of Use Ratings for App (left) and Workbook (right) (study 3)……………..175

Fig. 17. Days practised by group (left – Technology, right – Traditional) (study 3)………177

Fig. 18. Average number of days practice per week, by group (N=55) (study 3)………..177
Fig. 19. Practice Quality ratings by group (study 3)..........................177

Fig. 20. Homework Benefit Scores by group (study 3)..........................178

Fig. 21. Categorisation by stage at time 2 (study 3).................................179

Fig. 22. Categorisation by stage at time 3 (study 3).................................179

Fig. 23. Stage of change at time 1 by change pathway (study 3)..................180

Fig. 24. Percentage of participants in the action and maintenance stages (study 3)........181

Fig. 25. Baseline scores for helpful coping and anxiety by change pathway (study 3).....185

Fig. 26. Homework variables by Change Pathway (study 3)........................186

Fig. 27. Distress change scores by Change Pathway (study 3)......................187

Fig. 28. Wellbeing change scores by Change Pathway (study 3)....................187

Fig. 29. Means and 95% Confidence Intervals for App Feature ratings (study 3).......191
CHAPTER 1: Defining the research problem and overview of the thesis

The chronic activation of the stress response is a large problem for organisations that is associated with a broad range of harmful consequences at many levels. While chronic stress is a problem for society in general, police are at particular risk due to regular exposure to traumatic stressors on the job. To address this problem, in 2010, the New South Wales Police Force (NSWPF), together with the NSW Police Association approached the Australian National University (ANU) to develop and evaluate a resilience-training program targeted at police officers. The program aimed to equip participants with coping skills that help them to “bounce back from adversity”. Key research questions included: Can a brief training course enhance the long-term resilience of police recruits and prevent future psychological injuries? What is the most appropriate resilience training design? Related questions explored include:

- What are the behavioural mechanisms underlying resilience?
- How can a training program facilitate adoption of these behaviours?
- Will police recruits engage in the training and apply these skills?
- What factors are related to better outcomes for resilience training?

Drawing on a broad literature review covering stress, policing, coping, emotion regulation, developmental psychopathology and occupational health psychology, we designed a resilience-training program that was universal (to be provided to all officers), preventative (designed to prevent future injuries), and targeted to address transdiagnostic factors that were related to the development of a range of stress-related pathology problems (especially PTSD and depression). The program was informed by an understanding of risk and protective mechanisms that shape the impact of stressors together with the literature on stress interventions. In order to reduce experiential avoidance and promote coping flexibility, the program incorporated content from Acceptance and Commitment Therapy (ACT).
The research program involved three experimental studies. Studies 1 and 2 were conducted with police recruits at the NSWPF Academy while study 3 was conducted with 3rd year psychology students. The program design was updated between the studies to address issues that were identified, and to explore study-specific hypotheses. In all three studies, participants were introduced to a broad range of coping skills that could address the full range of stress symptoms and stressors (both work and personal).

The findings of study 1, referred to as the “pilot study”, indicated that in line with the existing literature the intervention was directed at important factors that serve to build resilience. While no significant findings were evident when comparing the control and intervention group across time, it was not possible to draw conclusions about the hypotheses because of methodological issues including low participant numbers and high attrition.

To overcome these issues, the program was revised in study 2 (also a controlled trial), based on a further review of theory and research concerning training effectiveness. While high attrition was addressed by making training compulsory for all participants in the training cohort, poor training transfer was addressed by making changes across three domains (trainee characteristics, organizational factors and training design). One important extension was the introduction of new methods to motivate participants to complete in homework and skills practice. As part of this coaching calls where introduced which tailored the training to participants “stage of change”. These revisions succeeded in increasing practice levels and moving participants along the stages of change. Furthermore, increased practise during the coaching period resulted in reductions in stress, depression, PTSD symptoms and increased mindfulness. In contrast, practice during the unsupported period was related to increased stress which perhaps reflects time being spent on less effective activities.

Study 3 built on studies 1 and 2 and particularly focuses on homework, stages of change and the use of performance aids as low cost replacements for coaching calls (in the
form of both a Smartphone App and a pen-and-paper traditional workbook), to guide participants towards helpful activities. While many studies have looked at the use of web-based psychological interventions (Griffiths, Farrer, & Christensen, 2010; Proudfoot et al., 2011; Ritterband, Thorndike, Cox, Kovatchev, & Gonder-Frederick, 2009), few studies have been conducted incorporating Apps, especially Apps used as an adjunct to therapy or training. There were some promising findings with participant improvements across time on behavioural measures, including an increase in values progress and a reduction in experiential avoidance, and some (marginally significant) indicators of reduced unhelpful coping. These findings are especially positive, when considering that there did not appear to be any negative impacts of replacing the resource intensive coaching calls with performance aids. With respect to differences between the practice methods, there were limited impacts on well-being scores, but technology did facilitate practice quality, homework and progressed participants to the “action” stage of change which is associated with improved outcomes. There was also evidence that participants change pathway moderated the impact of the training program. What this means is that in an iterative way the training may impact on an individual’s stage of change, which in turn affects the change pathway that can facilitate future progress. Longitudinal designs are necessary to explore these patterns in more detail.

Taken together, over the course of the three studies, improvements to the resilience training design substantially improved reactions to the program and we were able to improve retention of key knowledge and skills. We also developed methods to personalise the program based on stage of change, which succeeded in meeting diverse needs and facilitating progress along the stages of change. The inclusion of new technology-based aids represents innovation and points to a way forward for training of this kind. There are a number of limitations across the three studies that need to be addressed in future research. Further research needs to incorporate larger and more sophisticated longitudinal designs that follow
participants up over several years on the job, with at least three randomly assigned groups: no training, training only, training plus practice. In relation to future directions for research there is much more to be done improving the usability of the performance aids, exploring other forms of personalisation, and developing interventions to promote a positive transfer climate.

This program of research builds on and contributes to work in the areas of stress management training and policing. Although many studies have been conducted examining the effectiveness of stress management training (Richardson & Rothstein, 2008), very few have examined preventative effects of programs delivered to police officers (Arnetz, Nevedal, Lumley, Backman, & Lublin, 2009; Berking, Meier, & Wupperman, 2010; Penalba, McGuire, & Leite, 2008), and very few looking at the use of performance aids to enhance training transfer (Coultas, Grossman, & Salas, 2012). As such, this research provides additional insight into the mechanisms of change associated with training interventions aiming to prevent stress related illness in the workplace. The analytic focus is on differences between those that attended resilience training versus those who were not exposed to such training, in addition to differences in resilience training outcomes based on levels of skills practise between sessions.

In conclusion in revisiting the key research questions, it appears as if a brief training course can have positive outcomes but more work needs to be done to investigate long-term resilience, the resilience training design needs to be focused on the core constructs of coping and emotion regulation, multilevel dynamic and transdiagnostic risk and protective mechanisms, and training transfer and better outcomes are achieved when the training motivates practise through the inclusion of coaching calls and performance aids. While there is more work to be done the research outlined in this thesis has contributed to moving resilience training forward.
The research context: NSW Police Force Training and Recruitment

Participants in studies 1 and 2 were applicants of the NSW Police Force completing the Associate Degree in Policing Practice (ADPP). The ADPP, which is administered by Charles Sturt University (CSU) in conjunction with the NSW Police Force, is open to all permanent residents and citizens of Australia that meet the professional suitability requirements of the NSW Police Force. It comprises five sessions, with a mix of distance education and on campus education at the NSW Police Academy in Goulburn. The first two sessions are delivered full-time over a period of 34 weeks separated by a two-week observational placement. During these sessions, students are assessed on knowledge and skills of relevance to policing including investigations, communications, justice and law, criminal behaviour and social problems, weapons and tactics, ethics and road safety. Students who successfully complete these assessments may apply for employment as a Probationary Constable with the NSW Police Force. The final three sessions of the ADPP are delivered by distance education over a period of 12 months while the students are working full time. After successfully completing these sessions, students become eligible to become a NSW Police Constable.

Students invest considerable time and money into their training. While the NSW Police Force pays the cost of accommodation for all students at the academy, only 60 per cent of students receive any additional financial assistance (scholarships of between $8,000 and $12,000 are allocated on the basis of financial need and performance). All students are charged ADPP course fees totalling more than $15,000. Students also face a demanding workload. In order to be prepared for the job, sessions one and two of the ADPP at the

---

1 This information was obtained through informal discussions with the staff and students of the NSW Police Academy Staff and through reviewing the Charles Sturt University website: (http://www.csu.edu.au/study/arts-courses/policing/)
2 This information was summarised from responses to the following question “Please describe situations and experiences (e.g. thoughts, emotions, memories and sensations) that you expect to find stressful this semester.”
3 One aspect of relevance to organisational research is work stress, defined by the United States National Institute for Occupational Safety and Health aspect as “harmful responses… that occur when the requirements
academy need to cover a large amount of content in a short time. As expectations of police have increased over recent years this content has expanded greatly. In order to include this expanded content while maintaining at least the same number of graduating students, students scheduled daily contact hours have increased, with students commencing Monday to Friday at 7am and sometimes finishing as late as 10pm. During unscheduled time, students are expected to complete readings for class, write assignments and prepare for assessments.

Students at the academy face several unique financial and study-related stressors. As described in the introduction, students invest considerable time and money in training to become a NSW police officer. Until the end of session two, students face the risk of not getting a return on these fees if they fail to be offered employment. Given that much of the diploma content is relevant only to policing in NSW, the cost of not being offered employment is greater than other courses that teach skills relevant to a range of employers. In this context, it is not surprising that many students report experiencing considerable anxiety relating to failure, especially for students who have either low academic self-efficacy (who perceive a higher chance of failure) or financial commitments that depend on being offered employment (high cost of failure). In a context of time and performance pressure, students tend to be very concerned about using their time wisely. In particular, activities that increase the likelihood of being offered employment tend to be prioritised above all other activities. For many students this anxiety is amplified by being away from support networks while at the academy. Even if offered a job there is also uncertainty about where they would be placed, with many recruits being placed far away from family and friends.
The research context: ANU Psychology Program

Participants in study 3 were university students enrolled in a third year subject in Organisational Psychology at the ANU in July 2013. The study was conducted as part of an educational exercise in which students learnt about wellbeing programs, workplace training and research. As a third year subject, study pressures were heightened with many participants aiming for good grades to support their applications for jobs or postgraduate studies. Common stressors reported by the participants included difficulties managing the study workload, keeping up to date with exam preparation and assessments. Associated with this were fears about what they would do if their grades weren’t good enough to achieve their goals. Other difficulties reported by the participants included:

- Managing finances, paying rent, needing to work, difficulties balancing work with study commitments.
- Relationship difficulties, including breakups, conflict, and long distance difficulties.
- Concerns about letting down family members and friends who were unwell
- Difficulties with their living arrangements, moving stress, house maintenance
- Social anxiety concerns and loneliness
- Health, finding time to exercise, getting enough sleep, knee pain

---

2 This information was summarised from responses to the following question “Please describe situations and experiences (eg thoughts, emotions, memories and sensations) that you expect to find stressful this semester.”
Thesis Overview

This thesis comprises a general introduction and three studies that are summarised by a general discussion. In addition, a research practicum is found in appendix 1.

The general introduction of the thesis (Chapter 2) begins with broad literature review covering stress, policing, resilience, risk and protective mechanisms, and coping and emotion regulation. Based on this review, a case is made for the program of research, in particular the program design and how it relates to the theoretical framework.

Chapter 3 describes the pilot police study (study 1), including the main hypotheses being tested, followed by method, results and discussion, including feedback from focus group phone calls, and recommended updates to the program.

Chapter 4 outlines theory on training effectiveness and training transfer, and how this informed updates to the intervention design, before describing the method, results and discussion for the main police trial (study 2).

Chapter 5 outlines additional further improvements to the intervention design, before describing the method, results and discussion for the ANU Student trial (study 3).

Chapter 6 contains an analysis and discussion of all three studies, in addition to a discussion of the limitations of the current research and recommendations for future research.
CHAPTER 2: Theoretical framework and program design

Stress and the consequences of chronic stress

As a widely used concept, there are many definitions and aspects of stress. For the purposes of the current research, we define Stress as the physiological state of arousal that occurs in response to one or many perceived threats, and Stressors as events or situations that are capable of being perceived as a threatening. The physiological state of stress is driven by the stress response, also known as the fight-or-flight response (Cannon, 1929). Triggered automatically when a stressor is detected by the brain, the stress response can be activated as much by thinking about a potential stressor as the event itself (Levine, 2000). When the stress response is triggered, the autonomic nervous system and endocrine system disrupt the body’s homeostasis to direct energy and attention towards actions that protect the body from threat (Chrousos & Gold, 1992). The stress response evolved as a survival mechanism to address life-threatening situations. While it is adaptive for addressing short-term threats in healthy adults, chronic or prolonged activation of the stress response can have harmful physiological, affective and behavioural consequences sometimes referred to as Strain (Dollard, 2003; Sonnentag & Frese, 2003).

Although the complexity of the physiological mechanisms underpinning the stress response is beyond the scope of this research, a basic knowledge of stress physiology, including the neural and endocrine responses, is useful for informing the development of interventions to prevent chronic stress problems. This begins with an appraisal of the emotional significance or meaning of a stressor in the amygdala. According to the Transactional Model of Stress and Coping (Lazarus & Folkman, 1984), the appraisal of

---

3 One aspect of relevance to organisational research is work stress, defined by the United States National Institute for Occupational Safety and Health aspect as “harmful responses… that occur when the requirements of the job do not match the capabilities, resources or needs of the worker” (NIOSH, 1999). With a focus on individuals, the current research does not distinguish between work and personal stress.

4 Acute, intense activation of the stress response can be harmful in older and unhealthy individuals (Schneiderman, Ironson, & Siegel, 2005).
emotional significance is influenced by conscious and unconscious cognitive appraisals\(^5\) of whether the stressor is threatening (primary appraisal), in addition to appraisals of one’s ability to cope with that stressor (secondary appraisal). If deemed a threat, the amygdala activates the locus coeruleus (LC)\(^6\), which coordinates the stress response by:

- altering attention to focus on threat through connections with the prefrontal cortex,
- increasing arousal by activating both the fast-acting sympathetic nervous system (SNS) and the the slower, hormonal response involving the hypothalamic-pituitary-adrenal (HPA) axis (Benarroch, 2009),
- supressing the parasympathetic nervous system (PSNS) which is responsible for the calming “rest and digest response” (Smeets, 2010).

While the SNS response involves SNS neurons releasing neurotransmitters (especially norepinephrine\(^7\)) to activate critical organs\(^8\), HPA Axis activation involves three endocrine glands (the hypothalamus, pituitary gland, and adrenal glands) and the transmission of hormones through the bloodstream (including corticotropin-releasing hormone (CRH), adrenocorticotropic hormone (ACTH), glucocorticoids (especially cortisol) (de Kloet, Joëls, & Holsboer, 2005). The ultimate release from the adrenal glands of cortisol into the blood increases blood sugar to provide energy for the muscular response to threat (e.g. running or fighting) (Majzoub, 2006). To prevent over-activation of the HPA Axis, further cortisol release is inhibited when high cortisol levels are detected in the brain. Although the stress response switches off when the threat passes, the organs involved in the stress response do not automatically return to homeostasis, with recovery of these organs being facilitated by the PSNS returning to normal levels of activation (Weber et al., 2010). While salivary cortisol

---

\(^5\) Cognitive appraisal refers to the way an individual thinks about, or appraises, the stressor.
\(^6\) The LC is also the main site in the brain for the synthesis of norepinephrine
\(^7\) In the United Kingdom, norepinephrine and epinephrine are known as noradrenaline and adrenalin respectively.
\(^8\) This includes releasing adrenalin from the adrenal glands into the bloodstream to increase heart rate and blood pressure and to convert glycogen to glucose, increasing blood flow to muscles, increasing muscle tension, increasing pupil dilation and reducing saliva.
levels can be used to assess the level of chronic stress (Gröschl, 2008), baseline vagal tone can be used to assess the effectiveness of the PSNS at facilitating recovery from the stress response (Porges, Doussard-Roosevelt, & Maiti, 1994).

**Events and situations that trigger the stress response**

In addition to stressors related to one’s personal life, there are a wide range of physical, task-related, role, social, organisational, work-schedule-related and career-related stressors found in the workplace (Sonnentag & Frese, 2003), with stressors appraised as novel, demanding, uncontrollable or unpredictable, being more likely to activate the stress response (Karasek & Theorell, 1990). Although police officers are amongst the few occupations that could be expected to face life-threatening events on the job, such threats are rare for most employees. Instead, in the interdependent but competitive context of modern workplaces, threats related to social rank are a more frequent stressor, especially threats related to unrealistic goals. While many employees are under pressure to commit to such goals in order to compete with their colleagues or to deliver services with limited resources, for some, the struggle to achieve such goals comes at a considerable personal cost in the form of repeated activation of their stress response.

Stressors experienced by police can be categorised as either organisational (stressors related to the job tasks) or operational (stressors related to the police organisation) (McCreary & Thompson, 2006). Operational stressors include shift work, exposure to threatening, potentially traumatic events such as confrontation, violence or accidents, together with paperwork and maintaining a positive image in public. Organizational stressors include excessive administrative requirements, bureaucratic rigidity, dealing with supervisors and co-workers, dealing with the court system, internal investigations and a lack of resources.

---

9 Baseline vagal tone reflects activity in one of the key PSNS nerves.
Recognition of the contribution of traumatic stressors in the development of chronic stress problems has increased considerably since the introduction of Post Traumatic Stress Disorder (PTSD) in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1980). Since this time, there has been considerable debate related to the development of a definition of trauma that reflects the experience of different subgroups and provides access to appropriate treatment and compensation (Weathers & Keane, 2007). Within this debate, Herman (1992) argued that:

“traumatic events should be considered extraordinary, not because they occur rarely, but rather because they overwhelm the ordinary human adaptations to life. Unlike commonplace misfortunes, traumatic events generally involve threats to life or bodily integrity, or a close personal encounter with violence and death.” (p. 33)

Herman’s definition of trauma is consistent with the diagnostic criteria for PTSD\(^\text{10}\) in the latest edition of the DSM, which defines traumatic events as extreme stressors in which a person is exposed in some form to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence\(^\text{11}\) (American Psychiatric Association, 2013).

While policing is often regarded as an inherently stressful occupation due to regular exposure to traumatic events, contrary to what may be expected, several studies have shown that on average, police view organisational stressors as more stressful than operational stressors (Brough, 2005; Burke & Paton, 2006; Collins & Gibbs, 2003; Hart & Cotton, 2002). Furthermore, researchers have found that police officers exposed to danger on the job report improved job satisfaction (Davey, Obst, & Sheehan, 2001), particularly when the work is consistent with their role (Burke & Paton, 2006; Paton, Violanti, Burke, & Gehrke, 2009).

---

\(^{10}\) It is important to note that trauma can lead to a range of psychological and physical problems beyond PTSD.

\(^{11}\) The form of the exposure can be: 1) direct by the person under threat; 2) directly witnessing an event in person; 3) indirectly learning about the exposure to trauma of a close friend of relative; and of particular relevance to police, 4) repeated or extreme indirect exposure to aversive details of the event(s), usually in the course of professional duties.
The consequences of chronic stress

There are three reasons why chronic stress is a problem for employees (Nesse, Bhatnagar, & Young, 2007): First, the stress response uses up a lot of energy; Secondly, it interferes with other adaptive behaviours (such as eating, digesting, tissue growth and repair, bonding, mating and prosocial behaviours, and the high-level goal-oriented thinking and learning that is increasingly required in the workforce); and Thirdly, and most significantly, chronic stress dysregulates the immune system (Hannibal & Bishop, 2014; Stojanovich & Marisavljevich, 2008), it damages parts of the brain responsible for working memory and cognitive flexibility (Arnsten, 2009), and it plays a key role in the development of many physical and emotional disorders (Chrousos, 2009).

Looking beyond employees, chronic stress is also a problem for employers and relationships. For employers, it can undermines performance and productivity (Ford, Cerasoli, Higgins, & Decesare, 2011; Gilboa, Shirom, Fried, & Cooper, 2008), increase counter productive work behaviours and turnover (Griffeth, Hom, & Gaertner, 2000) and decreases organizational commitment (Mathieu & Zajac, 1990). Lastly, in terms of relationships, chronic stress can undermine parent-child behavioural interactions (Repetti & Wood, 1997) and marital cohesion (Robinson, Flowers, & Carroll, 2001). When considering these problems in the light of findings that 22 percent of European workers complain of stress (Parent-Thirion, 2007), chronic stress is clearly a major problem that needs to be addressed. Furthermore, in the context of policing, chronic stress is related to strain for:

- **Officers:** A range of physical, psychological and behavioural consequences have been reported including, but not limited to PTSD, depression, suicide, substance abuse, cardiovascular illness, high blood pressure and decreased job dissatisfaction (Austin-Ketch, 2009; Berg, Hem, Lau, & Ekeberg, 2006; Berg, Hem, Lau, Haseth, & Ekeberg, 2006).

---

12 This includes damage to the prefrontal cortex and hippocampus
2005; Brondolo et al., 2009; Johnson, 2008; Marmar et al., 2006; McCaslin et al., 2006; Pasillas, Follette, & Perumean-Chaney, 2006; Slottje et al., 2008; Sterud, Hem, Ekeberg, & Lau, 2007).

• **Their personal relationships:** Stress has been related to divorce, domestic violence and emotional detachment in relationships, (Brough, 2005; Janzen, Muhajarine, & Kelly, 2007; Madamba, 1986; Martinussen, Richardsen, & Burke, 2007).

• **Police organisations:** Chronic stress is associated with absenteeism, reduced morale and performance (Bakker & Heuven, 2006; Burke & Mikkelsen, 2006). This was especially the case for the NSWPF, which was experiencing reduced productivity and incurring increasing employee compensation costs related to psychological injuries\(^\text{13}\).

---

\(^{13}\) The term “psychological injury” refers to a stress-related conditions such as depression, anxiety and PTSD that become the subject of litigation or compensation claims (Koch, Douglas, Nicholls, & O'Neill, 2005). Different jurisdictions have different requirements for an employer to be deemed liable to pay compensation for a stress-related disorder. For example, in the Australian state of Victoria, to be entitled to compensation, it must be established that the psychological injury was caused to the employee in the course of their employment.
Coping and emotion regulation

As the consequences of chronic stress have become more apparent (Dollard, Winwood, & Tuckey, 2008; Norris, Hart, & Wearing, 2000), its prevention has become an increasing priority for many police organisations (Bilich, 2009). However, prevention is not a simple task for police organisations, as the nature of the work makes it impossible to eliminate exposure to demanding, threatening and uncontrollable stressors. Fortunately, consistent with the Transactional Model of Stress and Coping, the impact of stressors can be reduced by coping (See Figure 1)\(^{14}\). \emph{Coping} refers to the thoughts and behaviours taken by an individual to change or tolerate distress, which in the context of stress, refers to addressing stressors and stress symptoms (Lazarus & Folkman, 1984). In this section we review the role of coping and emotion regulation skills in preventing chronic stress and depression, in addition to the influence of socialisation on the development of these skills.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{transactional_model.png}
\caption{Transactional model of stress and coping}
\end{figure}

At a high level, coping strategies can be categorised as either problem-focused or emotion-focused (Folkman & Moskowitz, 2004). In the context of stress, \emph{problem-focused coping} includes behaviours to change stressors (e.g. by planning or problem solving), while \emph{emotion-focused coping} encompasses behaviours (e.g. relaxation, denial or avoidance) that aim to alleviate physiological distress and negative emotions\(^{15}\) related to the stress response. No coping strategies are uniformly effective at addressing stressors and symptoms (Bonanno

\[^{14}\text{The role of coping in the transactional model is in addition to role of cognitive appraisal discussed earlier.}\]

\[^{15}\text{Depending on the appraisal of the event, the stress response can encompass several negative emotions including frustration, anger, fear and shame (Freed & D’Andrea, 2015).}\]
& Burton, 2013)\(^{16}\). Rather, according to the goodness of fit hypothesis (Folkman & Moskowitz, 2004), coping is effective when there is a strong fit between the coping strategy and the perceived controllability of stressors (Conway & Terry, 1992; Lazarus & Folkman, 1984)\(^{17}\). While problem-focused coping is better for controllable stressors, emotion-focused coping is better for uncontrollable stressors (Forsythe & Compas, 1987). In contrast, poor fit leads to frustration (when problem-focused coping use used with uncontrollable stressors), and lost opportunities to address underlying problems (when emotion-focused coping is used in response to controllable stressors) (Haines et al., 2016; Troy, Shallcross, & Mauss, 2013).

Related to coping is the concept of emotion regulation, which refers to processes taken by individuals to modulate the experience (type and intensity) and expression of emotions\(^{18}\), including when and how they are expressed (Gross, 1998). Emotion regulation is a broader concept than coping\(^{19}\), with coping referring to emotion regulation activities that are done exclusively in response to negative events. Of the five sets of emotion regulation processes distinguished by Gross (1998), situation selection and situation modification can be related to problem-focused coping, while attention deployment, cognition change, and response modulation can be related to emotion-focused coping.

In addition to preventing chronic stress by regulating the stress response, coping behaviours can also be used to prevent depression in situations involving grief, loss or setbacks, to regulate sadness and hopelessness (Stroebe & Schut, 1999). Given that stress and depression interact in complex ways and are frequently comorbid (Slavich & Irwin,

\(^{16}\) This is demonstrated by findings that excessive problem-focused coping in police officers is related to increased distress (Patterson, 2003).

\(^{17}\) The key role of control appraisal aligns with the role of poor controllability in triggering the stress response.

\(^{18}\) We define emotion as simultaneous changes in the domains of subjective experience, behaviour, and physiology that result from appraisal of events (Gross, 2015).

\(^{19}\) Emotion regulation incorporates processes taken in response to both positive and negative events, and attempts to change affect in both positive and negative directions.
2014), it is valuable to understand the links between these disorders\textsuperscript{20}. One way of looking at these links is using the three emotion regulation systems highlighted by Paul Gilbert (2009)\textsuperscript{21}:

- The **Threat protection system** is an *avoidance* system that motivates actions away from aversive situations and is centred on the stress response physiology and related emotions (fear, anxiety, disgust, frustration, anger, shame).

- The **Drive system** is an *approach* system that motivates goal-driven actions *towards resources and incentives* leading to feelings of pleasure, excitement and happiness. Reductions in activation of this system following a setback can lead to loss of pleasure and reductions in motivation.

- The **Contentment system** is an *approach* system that motivates actions *towards soothing (the relaxation response) and social connectedness*, leading to feelings of peacefulness, contentment and affiliation. Reductions in activation of this system following the loss of a close connection can lead to feelings of sadness and grief.

Gilbert (2009) claims that distress is often caused by a lack of balance in activation of these systems due to heightened sensitivity of the threat protection system, unhealthy activation of the drive system, or inaccessibility of the contentment system. While the contentment system is internally wired to regulate the stimulatory effects of the threat and drive systems, it can be rendered inaccessible by self-criticism and shame\textsuperscript{22}. Unhealthy drive involves the use of threat-focused goals to activate the drive system (e.g. seeking status to avoid potential rejection). An individual with threat-focused goals is likely to become exhausted by needs to “prove themselves” and to be constantly achieving, and they are also at risk of triggering the stress response if they fail to achieve.

\textsuperscript{20} While the primary focus of this paper is on chronic stress, a secondary focus is made on depression in recognition that stressors often involve loss and failure, which impacts the drive and contentment systems.

\textsuperscript{21} These systems were drawn from the neurophysiology of emotion (Depue & Morrone-Strupinsky, 2005).

\textsuperscript{22} This could be due to the self-criticism being perceived as social threat and motivating participants to avoid the status threat by withdrawing socially or engaging in unhealthy drive to lift social status.
While Gilbert’s emotion regulation systems provide a useful high level heuristic for distinguishing biologically distinct emotional systems, more detail is required to identify the mechanisms through which balance in the emotion regulation symptoms can be restored. For this purpose we draw on the biopsychosocial model, which is a commonly used multi-level framework for explaining the development of pathology (Engel, 1977, 1980). According to this model, chronic stress develops through dynamic interactions between stressors, risk mechanisms and protective mechanisms across three levels: biology (e.g. genetic inheritance plus physiological differences that occur in utero or after birth, medical), psychology (e.g. personality, cognitive schema and attachment style, cognitive and behavioural processes), and the environment (e.g. cultural, familial, socioeconomic, relationships).

**Attachment, emotion dysregulation and avoidant coping**

The attachment system is a key mechanism through which the environment influences the initial development of coping and emotion regulation skills, especially skills related to contentment. Infants are largely externally regulated, relying almost exclusively on interactions with attachment figures to activate the physiological soothing benefits of the contentment system. Over time, following emotional interactions with supportive and caring attachment figures, children begin to self-regulate as they develop skills to activate the contentment system by themselves (Calkins & Leerkes, 2011). Although adults with effective self-regulation skills are not emotionally dependent on attachment figures, social interactions, especially in attachment relationships, maintain a key role in an adult’s emotion regulation, including in the workplace context (Harms, 2011).

---

23 The biopsychosocial model and the three emotion regulation systems can be used to map different theories of psychopathology. For example, the model of psychopathology underpinning interpersonal psychotherapy focuses on the contentment system and interactions between psychological and environmental factors.

24 The biopsychosocial model also recognises that the symptoms of chronic stress also exist at all three levels.

25 According to attachment theory, all humans are born with an attachment system that motivates them to seek proximity, assistance and comfort from attachment figures when experiencing fear or danger (Bowlby, 1988).
A lack of care and support from early attachment figures, including the modelling of maladaptive coping behaviours, can lead to a state of emotion dysregulation, in which attempts at emotion regulation are unsuccessful, and one’s capacity to work, relate to others and enjoy life is impaired (Cole, Michel, & Teti, 1994). In the case of stress, emotional dysregulation involves a failure to regulate HPA Axis activation, leaving it activated in situations where it is not adaptive (Beauchaine, Gatzke-Kopp, & Mead, 2007). Implicated in many forms of psychopathology, emotion dysregulation can involve either underregulation (where the regulatory effort is not of sufficient strength to meet contextual demands) or misregulation (use of strategies that are ineffective for the context) (Tice & Bratslavsky, 2000). Emotion dysregulation has been related to the following deficits: 1) Poor understanding of emotions; 2) Negative beliefs about emotions, and 3) Maladaptive coping and management of emotions (e.g. inadequate skills related to when to intervene and how to intervene) (Mennin, Holaway, Fresco, Moore, & Heimberg, 2007).

In the context of regulating the stress response or feelings of sadness and hopelessness, there are many avoidant coping behaviours that aim to avoid, or get rid of, stressors and symptoms, including drinking, distraction, social withdrawal, venting, suppression, mental disengagement (e.g. zoning out) and task avoidance (Carver, Scheier, & Weintraub, 1989). While avoidant coping may bring temporary relief, repeated use of avoidant coping over a long-term tends to be maladaptive and related to emotional dysregulation. Avoidant coping has been resulted to increased levels of job dissatisfaction, burnout, intentions to quit, physical symptoms (Koeske, Kirk, & Koeske, 1993) and psychological distress (Fledderus, Bohlmeijer, & Pieterse, 2010; Kashdan, Barrios, Forsyth, & Steger, 2006).

In a policing context, researchers have found that while officers report higher levels of problem-focused and avoidant coping, they neglect helpful emotion-focused coping
RESILIENCE TRAINING IN THE WORKPLACE

(Evans, Coman, Stanley, & Burrows, 1993). Furthermore, two fifths of respondents on a NSW Police survey reported excessive alcohol use (an avoidance strategy), with higher drinking rates among younger police (Richmond, Wodak, Kehoe, & Heather, 1998). In addition they have found that these avoidant coping styles are often modelled and socialised by supervisors and peers. The following studies look at the impact of avoidant coping:

- Officers with higher avoidant coping reported increased distress (Pasillas et al., 2006)
- Emotional detachment related to poor socio-emotional engagement and difficulties maintaining healthy relationships and social networks (Madamba, 1986)
- Difficulty identifying feelings predicted increased depression levels in new recruits 12 months later (Williams, Ciarrochi, & Deane, 2010)

**Symptom trajectories: from chronic stress to resilience**

In the previous sections, we explored two fundamental processes that shape the impact of stressors: 1) chronic activation of the stress response, which causes harm at many levels; and 2) coping and emotion regulation skills, which act to prevent this harm. While these processes are common for all people, the impact of stressors varies substantially between people. This variation in symptoms over time can be characterized by several trajectories: chronic stress; delayed onset, recovery, and resilience (Pietrzak et al., 2014). Resilience refers to the dynamic process of adapting positively to disturbances that threaten functioning or development (Bonanno, 2004; Luthar & Cicchetti, 2000; Masten & Wright, 2009). Within this definition, positive adaptation is characterised by the maintenance of healthy psychological and physical functioning across multiple life domains. Although many police experience chronic stress problems, resilience is by far the most common trajectory for officers (Paton et al., 2009), including those who have been exposed to traumatic stressors (Marmar et al., 2006). In this section we review key mechanisms that shape symptom trajectories, in order to inform the development of interventions to foster resilience.
Explaining variation: risk and protective mechanisms

According to the stress-diathesis model, individuals develop chronic stress pathology when stressors trigger pre-existing vulnerabilities (Monroe & Simons, 1991), including both the presence of risk mechanisms\(^{26}\), defined as processes that increase the risk of chronic stress, and the absence of adequate protective mechanisms, defined as processes that protect against the development of chronic stress. The unique and changing mix of each person’s risk and protective mechanisms explains the diversity in symptom trajectories noted in the previous paragraph\(^{27}\) (Cicchetti, 2010; Rutter, 1987). Similarly, this mix of risk mechanisms and protective mechanisms also leads to diversity in the form of strain experienced by a person (Barlow, Ellard, Sauer-Zavala, Bullis, & Carl, 2014). While risk mechanisms directly increase chronic stress, protective mechanisms foster resilience by preventing individuals from being harmed by risk mechanisms. Protective mechanisms operate by compensating for the effect of risks with direct, independent and opposite effects; or by moderating the effect of risks (Smith-Osborne, 2007; Zimmerman et al., 2013).

The history of resilience research

While resilience research with police and military organisations has become more prominent in the past decade (Bowles & Bates, 2010; Paton et al., 2007), research into resilience was first pioneered by developmental psychologists in the 1970s who were interested in understanding why some children had trajectories characterised by positive adaptation despite exposure to high levels of adversity (Masten, 2001; Masten, 2007). Although there remains a relative absence of longitudinal resilience research with adults compared to children, research supports the generalizability of protective mechanisms found

---

\(^{26}\) Note: While current stressors can also be considered as risk mechanisms, they are distinguished from pre-existing vulnerabilities in the definition of resilience.

\(^{27}\) Diversity in outcomes is consistent with the principle of multifinality. According to this principle, the effect on functioning of any single factor within a system depends on the values of components in structurally linked systems (Cicchetti & Rogosch, 1996).
in child studies to adult populations (Vanhove, Herian, Perez, Harms, & Lester, 2016). The evolution of resilience science has been characterized by four waves (Masten, 2007):

• The first wave described resilience and identified correlates of resilience, including both risk and protective factors. Risk factors refer to factors that activate risk mechanisms, while protective factors refer to factors that activate protective mechanisms;28

• Guided by theories of human development, the second wave identified risk and protective processes and systems responsible for the correlates of resilience;

• The third wave involved the development of resilience interventions which aimed to prevent pathology by increasing the balance of protective mechanisms over risk mechanisms (Zimmerman et al., 2013);

• The fourth wave builds on earlier findings by recognising that stressors, symptoms, risk mechanisms and protective mechanisms operate across multiple levels.

The fourth wave of resilience research: multilevel dynamics

Given that the stress response involves an interaction between a person and their environment, the multilevel analysis of chronic stress must incorporate at least these two levels. That said, consistent with the biopsychosocial model, multilevel analysis could incorporate many sublevels, from cells and neurons all the way up to complex social systems. In addition to modelling interactions across multiple levels, multilevel dynamic models also account for temporal influences on symptom trajectories, by acknowledging that the influence of distal factors (i.e. factors related to genetics, upbringing and early childhood experience)29 on stress levels is mediated by influence of proximal factors (Inslicht et al., 2010). This has led to the development of sophisticated multi-level models that incorporate

28 While risk factors are directly related to negative outcomes, protective factors are only indirectly related to desirable outcomes, by offsetting adversity (stressors) (Masten, 2014).
29 For PTSD, proximal factors are often broken up on a temporal basis around the trauma event, including pretrauma, during trauma, immediately post trauma and ongoing factors (Brewin, Andrews, & Valentine, 2000).
the influence of interactions between levels, such as the differential susceptibility model, which explains interactions between early childhood environments and genetically driven high environmental sensitivity\(^{30}\) (Booth, Standage, & Fox, 2015; Pluess, 2015). The temporal nature of risk and protective mechanisms highlights the importance of intervening early to foster resilience. Early intervention is especially important given findings that multiple, cumulative, risks significantly increase the likelihood of pathology (Masten, 2014).

*Review of risk and protective mechanisms*

Risk and protective factors for chronic stress problems influence each step in the Transactional Model of Stress and Coping including: 1) the generation of stressors; 2) stressor appraisal; 3) emotional and physiological response; and 4) coping responses. Factors can also be identified for different types of coping responses: a) situation selection and modification strategies (to reduce stress generation); b) attention deployment and cognition change strategies (to change stressor appraisals); and c) response modulation (to reduce emotional and physiological symptoms)\(^{31}\). On the following pages we review risk and protective mechanisms, drawing on a two stage version of the transactional model by Bolger and Zuckerman (1995), highlighting factors that influence both 1) stressor exposure (step 1 of the transactional model); and 2) stressor reactivity\(^{32}\), which refers to the tendency for stressors to trigger the stress response (steps 2 to 4).

With chronic stress having many forms of strain, and with each form of strain being influenced by proximal and distal factors related to stressor exposure and reactivity that cut across three levels (biological, psychological and environmental), the number of risk and protective factors is enormous. As such, to avoid overwhelming the reader with an  

\(^{30}\) High environmental sensitivity can either be a risk factor or advantage, depending on childhood experiences.  
\(^{31}\) This breakdown was drawn from the types of emotional regulation identified by Gross (2015), based on the fact that coping responses are actually emotion regulation strategies intended to change the first three steps.  
\(^{32}\) Stress reactivity, is thought to be due to a combination of genetic influences, prenatal environment and early childhood experiences (Schlotz, 2013).
encyclopaedia of factors, our review focuses on proximal psychological mechanisms\textsuperscript{33}. Furthermore, consistent with transdiagnostic conceptual models, we focus on factors\textsuperscript{34} common to multiple forms of psychopathology (Mansell, Harvey, Watkins, & Shafran, 2008), with a particular focus on mechanisms underlying costly forms of strain, especially PTSD and depression. Under risk mechanisms we include factors related to individual differences in stressor exposure and emotion dysregulation, while under protective mechanisms we include factors related to individual differences in the regulation of the effects of risk mechanisms. We begin by reviewing risk mechanisms from the perspectives of personality, cognitive schema, attachment style and cognitive-behavioural processes.

**Risk Mechanisms**

*Risk Mechanisms – Personality (Neuroticism)*

Personality refers to individual differences in the manner in which people typically think, feel, behave, and relate to others (Widiger, 2011). Personality has a major influence on both stressor frequency and the extent to which a stressor triggers the stress response (stress reactivity), with what may be a threat for one person being a source of satisfaction for another (Schneiderman et al., 2005). Of the five major personality factors, neuroticism, defined as the tendency to experience intense and frequent negative emotions in response to stress (Barlow et al., 2014), is the most important and frequently studied personality risk factor for stress (Bolger & Zuckerman, 1995)\textsuperscript{35}. In addition to being a robust predictor of many mental

\begin{footnotesize}
\textsuperscript{33} While the focus is on proximal psychological factors, we also briefly introduce biological and environmental factors related to those psychological factors, in addition to distal factors related to the development of these proximal factors (e.g. prior trauma).

\textsuperscript{34} Transdiagnostic models incorporate a range of processes related to attention, memory, reasoning, thought and behaviour (Harvey, 2004). Some of these processes

\textsuperscript{35} The other four factors agreed on by personality researchers are extroversion, conscientiousness, agreeableness, and openness to experience (McCrae & John, 1992).
\end{footnotesize}
and physical disorders (Lahey, 2009), neuroticism has been found to be the biggest predictor of distress amongst police officers (Hart & Cotton, 2002). Studies have found neuroticism to be related to increased frequency of stressors, including daily hassles, relationship conflict, bullying, physical health problems, and unemployment (Lahey, 2009; Persson et al., 2009). Neuroticism has also been related to increased stress reactivity following exposure to stressors, with stress levels found to rise for police officers with high but not low levels of neuroticism (Violanti, Mnatsakanova, Andrew, Ferkedulegn, & Hartley, 2014). While the increased frequency of stressors is thought to be driven by behaviours related to neuroticism, heightened reactivity is thought to be driven by increases in baseline arousal (Abbasi, 2016; Mooradian & Olver, 1994) and the tendency to perceive stressors as threatening (Bolger & Zuckerman, 1995; Suls & Martin, 2005). Consistent with Bolger’s model of personality effects, neuroticism can be considered to mediate exposure to stressors and moderate reactivity.

**Risk Mechanisms – Dysfunctional Cognitive Schema**

The central role of threat appraisal in the stress response highlights the importance of cognitive factors in the development and maintenance of chronic stress. Cognitive risk mechanisms can be understood using Beck’s general cognitive model of psychopathology, which focuses on the role of cognitive schemas in processing information about stressful events, interpreting meaning, and activating related psychological and physiological systems (Beck & Haigh, 2014). According to the cognitive model, psychopathology occurs when information processing becomes biased by dysfunctional schema. Individuals with a genetic predisposition are thought to develop these dysfunctional schemas in response to

---

36 Related to neuroticism, police distress has been related to several lower order traits: trait anger, trait anxiety and trait dissociation (Brondolo et al., 2009; McCaslin et al., 2008; Newman & LeeAnne Rucker-Reed, 2004).

37 *Cognitive schemas* are defined as stable and complex internal representations of stimuli, ideas, or experiences (including memories, involuntary flashbacks, bodily sensations, emotions and cognitions). *Beliefs* are one aspects of schema content including assumptions, expectancies, fears, rules, evaluations and attributions.

38 Information processing includes both lower-order automatic processing and higher-order reflective processing. Negative bias is said to exaggerate threats and positive bias to exaggerate rewards.
negative interactions with the environment\textsuperscript{39}, leading to the accumulation of negative biases in attention, memory and interpretation of events.

While a dysfunctional schema may develop in childhood and lay dormant for many years, it can be activated later by a triggering stressful event, leading a person to interpret the event in a negative and distorted way that leads to negative attitudes about themselves, the world and the future (known as the negative triad). The general cognitive model proposes that different forms of psychopathology can be distinguished by the triggering stimuli and the content of the resulting negative attitudes. While depression is underpinned by the development of negative attitudes to the self and future when faced with rejection, loss or failure, anxiety and PTSD are underpinned by attitudes related to threat (e.g. “The world is dangerous”) and unpredictability and uncontrollability (e.g. I cannot keep myself safe) when faced with feared stimuli (including trauma reminders)\textsuperscript{40}. Cognitive schemas that contribute towards the development of these negative attitudes include:

- A pessimistic attributional style in which past and future stressful events are attributed to internal/personal, stable/permanent, and global/pervasive causes as opposed to external, temporary, and specific causes (Elwood, Hahn, Olatunji, & Williams, 2009; Peterson & Park, 1998).
- A mindset that stress is debilitating (Crum, Salovey, & Achor, 2013).
- A mindset that ability is fixed, that looking smart is what matters, and that effort is bad because smart people shouldn’t have to work hard (Yeager & Dweck, 2012).

\textsuperscript{39} For example, exposure to non-responsive environments is thought to lead to learned helplessness schema (Peterson & Seligman, 1984).
\textsuperscript{40} The development of these attitudes and related maladaptive schema in response to adversity is thought to play a key role to the development of neuroticism (Barlow et al., 2014).
Risk Mechanisms – Insecure Attachment Styles

Cognitive factors also play a key role influencing stress responses in an interpersonal context. According to attachment theory, in addition to shaping the development of emotion regulation skills, the response of attachment figures to proximity seeking behaviour shapes infants’ perceptions of themselves and their expectations about whether they can count on an attachment figure to be available and responsive in the future (Bowlby, 1988). These perceptions and expectations are represented by social schemas known as internal working models, which form the basis of future relationship dynamics (Hazan & Shaver, 1994). Differences on working models have been linked to three major attachment styles (secure, anxious and avoidant), with each style corresponding to different caregiver behaviours.

Like other forms of dysfunctional schema, attachment insecurity can become activated in adult relationships leading to dysfunctional cognitions and behaviour. While individuals with anxious attachment have beliefs that they are unable to resolve problems alone which drive them to seek proximity, support, and approval excessively when distressed, individuals with avoidant attachment have beliefs that they are better off addressing problems alone which drive them to reject friends, family, and colleagues (Mikulincer & Shaver, 2007). In addition to impacting relationships, individuals with insecure attachment have been found to have deficits in internal affect regulation (Mikulincer, 1999) and be at greater risk of physical illness (Maunder & Hunter, 2001). The higher levels of physical illness are thought to be due to roles that insecure attachment plays in: 1) increasing appraisals of threat in social contexts; 2) undermining help seeking and treatment adherence behaviours; and 3) increasing use of external affect regulation strategies such as substance use, eating and risky sexual behaviours (compensating for internal affect regulation deficits).

---

41 Negative perceptions of self rank and status (e.g., perceiving self as inferior), and the perception of others as more powerful are thought to be a key role in the development of pathology (Gilbert, 2009).
Risk mechanisms – Dysfunctional Cognitive-Behavioural processes

There are many patterns of action and thought that increase stressor exposure and reactivity and contribute to emotion dysregulation. Processes that increase stressor exposure include processes related to job tasks (e.g. behaviours related to inadequate training), planning (e.g. setting unrealistic goals) and interpersonal behaviour (e.g. being passive or aggressive). Processes that mainly effect reactivity include cognitive fusion (which increases the likelihood of threat appraisals), experiential avoidance (and related maladaptive coping behaviours such as perseverative cognition), and unhealthy lifestyle behaviours (e.g. smoking, drinking, insufficient exercise, poor sleep and diet habits) (Kaye & Lightman, 2005). These processes reflect factors related to personality and attachment style discussed earlier (Cantor, 1990).

Cognitive fusion refers to the domination of cognitive processes in the regulation of behaviour to the exclusion of other sources of stimulus control (Hayes, Levin, Plumb-Vilardaga, Villatte, & Pistorello, 2013). Fusion becomes harmful when: 1) dysfunctional thoughts are taken literally; and 2) when responding to these thoughts as if they were the truth gets in the way of adaptive goal-oriented behaviours. While cognitive fusion is related to increased levels of anxiety, depression, stress and PTSD, this relationship is strongest at higher levels of another process known as experiential avoidance (EA) (Bardeen & Fergus, 2016; Gillanders et al., 2014). EA describes the extent to which individuals: 1) are unwilling to stay in contact with painful thoughts, memories and emotions (private experiences); and 2) take steps to control, alter or avoid these experiences (Hayes, Strosahl, & Wilson, 1999). Paradoxically, such attempts to control private experiences have a tendency to intensify these experiences (Wegner & Zanakos, 1994) leading to more distress.

42 In this section we focus on cognitive processes as opposed to content which was discussed under schemas
43 For example, the influence of neuroticism on the experience of negative emotions is partially mediated by emotion dysregulation (Berking, Meier, & Wupperman, 2010; Ng & Diener, 2009).
While the role of EA in increasing distress is clearly illustrated by the avoidance features in the diagnostic criteria for PTSD and depression (e.g. dissociation and withdrawal), it also plays a central role in the aetiology in many psychological disorders (Bond & Hayes, 2002; Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Furthermore, reductions in EA have been found to lead to reduced distress and improved performance (Bond & Bunce, 2003). As opposed to a specific emotional regulation strategy, EA is a pathological function of behaviour that influences the effects of all strategies (Boulanger, Hayes, & Pistorello, 2009). Put another way, whenever a strategy is used for EA reasons, psychopathology and life dissatisfaction can be expected to result. The pathological nature of EA is consistent with findings that it mediates the negative effects of maladaptive coping (e.g. drinking) on psychological distress (Fledderus, Bohlmeijer, & Pieterse, 2010; Kashdan et al., 2006).

A common maladaptive coping strategy that involves EA is perseverative cognition (PC) (Boulanger et al., 2009). PC refers to repeated, or chronic activation of cognitive representations of stress-related events in both the past (rumination), future (worry) (Brosschot, Pieper, & Thayer, 2005). According to the 'perseverative cognition hypothesis’, PC mediates the effects of stressors on somatic symptoms and functioning by prolonging stress-related physiological activity (Verkuil, Brosschot, Gebhardt, & Thayer, 2010). A common reaction to stressful events, it is argued that PC is a self-regulatory response to threat that is prolonged by an inability to recognize signals of safety. It is especially common in individuals with excessive commitments to goals, who use it to cope with potential threats to goal attainment. PC and associated physiological activation is thought to often occur outside of consciousness, including during sleeping (Brosschot, 2010).

One form of PC that is especially maladaptive is negative self-referential processing (NSRP). NSRP includes repetitive and self critical thinking about past mistakes and thinking focused on self rank, status or relative power that leads to evaluations of the self as unworthy
and inferior, or triggers concerns about disapproval and rejection (Mennin & Fresco, 2015). The tendency to engage NSRP develops as a safety strategy in response to negative early life events. It triggers emotions of shame, social anxiety and uncertainty and related stress physiology, which can lead to submissive behaviours (such as appeasing others and avoiding interpersonal conflict) that undermine the pursuit of goals (Gilbert, 2009). In addition to increasing stress and undermining goals, self-criticism is said to make it harder to activate the contentment and self-soothing system, which in turn undermines stress recovery.

*Risk mechanisms – Proximal Biological Factors*

Biological risks include mechanisms related to:

- aspects of the biological basis of personality (temperament), in particular high sensation seeking (Zuckerman, 1994) (*increases exposure*) and high sensory processing sensitivity (*increases reactivity*). According to the differential susceptibility model, sensitivity can have a negative or positive influence on functioning depending on whether early childhood experiences are adverse or supportive (Pluess, 2015).

- current physical state such as the effects of inadequate sleep, nutrition, poor physical fitness, medication, substance abuse, illness, injuries and chronic pain (Kaye & Lightman, 2005) (*increases exposure and reactivity*).

- biological correlates of emotion dysregulation (*increases reactivity*) including brain deficiencies such as stress related hippocampal damage that reduces ability to normalize HPA activation and deficient cortical regulation of limbic activation (Koenen et al., 2001). The effects of neuroticism are expected to be due to a combination of these biological factors together with dysfunctional cognitive schemas (Barlow et al., 2014).
Risk mechanisms – Proximal Environmental Factors

Environmental risks can operate across many levels (dyad, team, job, organisation or community), in both personal and work contexts, including mechanisms:

- that reduce social status such as minority stress (Hatzenbuehler, 2009), discrimination (Sawyer, Major, Casad, Townsend, & Mendes, 2012), bullying (Hansen et al., 2006), negative community attitudes (Koenen, Stellman, Stellman, & Jr., 2003),
- that encourage individuals to ignore their emotional needs such as invalidation (Shenk & Fruzzetti, 2011), mental illness stigma and barriers to care (Pietrzak et al., 2010),
- that increase perceptions of uncontrollability and unpredictability such as low job control (Marmot, Bosma, Hemingway, Brunner, & Stansfeld, 1997) and unemployment (Brown, Beck, Steer, & Grisham, 2000; Hiswåls et al., 2015).

Risk mechanisms – Distal Factors and Interactions Between Levels

Inslicht et al. (2010) conducted a sophisticated analysis looking at interactions between distal and proximal risk factors for police. They found that while a family history of mental illness and prior trauma exposure increased the risk that new police officers would develop PTSD symptoms, this risk was mediated by the proximal behavioural factor of emotion dysregulation°. To explain why officers with a family history of mental illness might develop higher levels of emotion dysregulation, they pointed a combination of genetic mechanisms and childhood experiences (e.g. poor modelling of emotion regulation skills or abusive parental behaviours). Furthermore, they pointed to a role for biological factors in maintaining the dysregulation, referring to neuroimaging studies of individuals with PTSD in which prefrontal cortex activation is lower in individuals with emotion dysregulation.

° In this study emotion dysregulation was measured based on the self reported level of emotional distress at the time of, and immediately after, the officers’ most distressing traumatic incident on the first year on the job.
(Koenen et al., 2001), which is also consistent with under-activation of the PSNS\textsuperscript{45}. Neuroticism predicted lower use of strategies to repair negative emotions and the tendency to use maladaptive emotion-regulation strategies.

**Protective mechanisms**

Based on an extensive review of longitudinal studies, Masten and Wright (2009) identified six related protective mechanisms that cross over different levels (i.e. biological, psychological and environmental) and offset the effect of risk mechanisms. These include:

- problem-solving and intelligence;
- self-regulation of attention, emotion and action;
- agency, self-efficacy and mastery motivation;
- meaning making;
- attachment relationships and social support; and
- cultural and spiritual rituals.

A consistent theme of these mechanisms, is a focus on what has been called “regulatory capital”, which incorporates *self-regulation* and the capacities of social systems to support regulation (*external regulation*) (Masten, 2007). When considering that external regulation can be undermined by environmental changes, self-regulation is especially valuable.

While the same protective systems mediate the effects of adversity for all individuals, the protective influence of each system is moderated by individual differences in factors related to these systems. For example, individuals with low IQ (*biological*) could be expected to have poorer problem solving, while self-regulation is expected to be poorer in individuals with high levels of neuroticism, but enhanced by healthy lifestyle behaviours related to physical exercise, nutrition and sleep (Southwick & Charney, 2012). In addition,

\textsuperscript{45} Prefrontal cortex activity has been found to mediate the influence of resting vagal tone (Thayer & Brosschot, 2005) on stress recovery (Weber et al., 2010).
social support is likely to be poorer amongst people who are isolated (environmental), have poor interpersonal skills (Segrin, Mc Nelis, & Swiatkowski, 2016), or who are high in neuroticism (Barlow et al., 2014) (psychological).

Other psychological factors related to these protective systems include trait resilience, which refers to the self reported ability to adapt to changing demands (Block & Kremen, 1996; Wagnild & Young, 1993) and positive affectivity, the ability to experience positive emotions when stressed (Fredrickson, Tugade, Waugh, & Larkin, 2003; Ong, Bergeman, Bisconti, & Wallace, 2006), in addition to the cognitively driven traits of hardiness, defined as a strong sense of commitment, control and challenge (Kobasa, Maddi, & Kahn, 1982) and the similar concepts of sense of coherence, which refers to a sense of confidence that stressors make sense and are predictable (comprehensible), that one has the resources to meet the demands (manageable) and that the challenge of a stressor is worthwhile (meaningful) (Antonovksy, 1987). Researchers have found that hardiness protects against depression and anger in police and PTSD in veterans (Andrew et al., 2008; James, Wilson, & McMains, 2006; King, King, Fairbank, Keane, & Adams, 1998), while sense of coherence protects against post traumatic symptomatology in police officers (Friedman & Higson-Smith, 2003).

Stress Management Interventions

Following on from our review of risk and protective mechanisms for chronic stress, in this section we review the literature on stress management interventions, before outlining the design of an intervention that we developed for the NSWPF that aimed to build resilience and prevent chronic stress and depression in police officers. Consistent with multilevel dynamic models of resilience and risk, interventions to address the problem of chronic stress can be grouped into the following categories:

---

46 The same categorisation can be used to describe interventions for dealing with depression.
• **Primary** interventions, which aim to build resilience and prevent stress-related problems by targeting organisational factors in ways that reduce exposure to stressors, reduce risk factors, or increase protective factors (Bond, Flaxman, & Bunce, 2008; Chapin, Brannen, Singer, & Walker, 2008; Muller, MacLean, & Biggs, 2009);

• **Secondary** interventions, which also aim to build resilience and prevent stress-related problems, but instead target personal factors, the most common being psychological interventions that target the development of coping skills as a protective factor to offset risk factors (Randall & Nielsen, 2010); and

• **Tertiary** interventions, which provide treatment to employees who are already experiencing stress-related problems (Randall, Buys, & Kendall, 2006; Randall & Nielsen, 2010).

Given that each category targets risk and protective mechanisms at different levels of the biopsychosocial model, or a different stage in the development of pathology, we recommend that organisations take an approach that integrates all three categories. An integrated approach is supported by research showing that the effects of primary interventions are amplified in employees who improve their coping skills (Bond et al., 2008).

While increasing attention has been directed to stress management interventions for police officers (Cooper, 2003), the empirical literature on their effectiveness is currently limited and inconclusive. A Cochrane review of interventions for the prevention of psychological disorders in police officers found ten randomised trials, most of which were small and of low quality. While the majority of studies were tertiary interventions, three secondary interventions were included (Penalba et al., 2008) problem solving and social skills training \( (n=90) \) (Aremu, 2006); mental imaging training \( (n=75) \) (Backman, Arnetz, 47

---

47 While personality factors are also both risk and protective factors for resilience, the entrenched and complex nature of personality means it is too time consuming to target directly in a universal intervention. That said, by offsetting risk mechanisms coping skills training could indirectly address the effects of personality.
Levin, & Lublin, 1997); and physical fitness and stress inoculation ($n = 86$) (O'Neill, Hanewicz, Fransway, & Cassidy-Riske, 1982).

Of particular relevance to the question of how to address the problem of chronic stress in police, was a paper by Hart and Cotton (2002) who questioned the value of secondary interventions based on their study which found that coping skills were unrelated to police distress levels. While their study was noteworthy in finding that the most important predictor of police distress is neuroticism, their criticism of secondary interventions was unjustified on two grounds. Firstly, the coping skills comparison used in Hart and Cotton’s study was not meaningful, as it didn’t distinguish between helpful, emotion-focused coping, and unhelpful avoidant coping. Secondly, they didn’t propose a way to support officers with high levels of neuroticism. Interestingly, Kashdan and Rottenberg (2010) argue that tendency of people with high levels of neuroticism may engage in avoidant coping due to an inability to detach from their negative thoughts and feelings, to connect with the present moment and flexibly choose more adaptive coping strategies. On this basis, by supporting the development of adaptive alternatives to avoidant coping, a secondary intervention focused on coping skills would likely be especially beneficial for officers with high levels of neuroticism.

Building resilience using Stress Management Training

The intervention that we developed for the NSWPF involved the use of stress management training (SMT), as a secondary intervention that aimed to build resilience, and reduce future levels of chronic stress. It was both universal (for all officers) and preventative (delivered before experiencing the stressors), and consistent with the integrated approach, it was conducted alongside separate NSWPF research on primary and tertiary interventions.

---

48 They recommended that chronic stress should instead be addressed by primary interventions focused on leadership and management practices.
49 This study compared problem-focused and emotion-focused coping.
50 Neuroticism is related to maladaptive coping (escape-avoidance and self blame) (Gunthert, Cohen, & Armeli, 1999; O’Brien & DeLongis, 1996)
51 While our resilience-training program incorporated SMT as part of a secondary intervention, SMT can also be incorporated in tertiary interventions (e.g. skills training for people diagnosed with a stress-related illness).
On the following pages we review the literature on building resilience using SMTs, before outlining the design and rationale of the SMT that we developed for the NSWPF.

While SMTs vary in content, they typically focus on modifying the way employees both appraise stressors and cope with stress. Skills taught can include relaxation techniques to address the physiological consequences of stress, problem solving, time management and social skills training, and techniques from traditional cognitive behavioural therapies (CBTs), such as exposure (Meichenbaum, 2007) or changing attributions of stressors to temporary and controllable (Beck, 1995). A meta-analysis looking at the effectiveness of thirty-six stress management interventions found that SMTs based on cognitive behavioural therapy (CBT) produced larger effect sizes than other interventions (Richardson & Rothstein, 2008). Studies looking at Police SMTs include:

- An intervention incorporating both traumatic imagery exposure and coping skills training (Arnetz et al., 2009) (n=18). In a critical incident simulation twelve months after training, intervention group members demonstrated enhanced performance and lower physiological arousal and negative mood relative to control group members.

- A program which was effective at overcoming deficits in emotion regulation skills (Berking et al., 2010).

The literature on resilience-building interventions with soldiers, who are also exposed to unavoidable traumatic stressors, is much more extensive than for police. Both the United States (Casey Jr, 2011) and the Australian (Cohn, Hodson, & Crane, 2010) defence forces are trialling resilience training programs. The US Army resilience program, known as Comprehensive Soldier Fitness (CSF) is an ambitious and comprehensive project that takes a holistic approach to developing psychological resilience across five dimensions (Casey Jr, 2011): 1) physical; 2) social (Cacioppo, Reis, & Zautra, 2011); 3) emotional (Algoe &

---

52 In addition to SMTs, this meta-analysis included 5 studies that were primary (organizational) interventions.
Fredrickson, 2011); 4) spiritual (Pargament & Sweeney, 2011); and 5) family (Gottman, Gottman, & Atkins, 2011). CSF aims to serve as a catalyst for changing the army culture from one in which behavioural health is stigmatized to a culture in which psychological fitness is seen as just as important as physical fitness (Casey Jr, 2011). Subject to ongoing rigorous assessment, preliminary findings indicate that exposure to CSF resilience training reduces the likelihood of being diagnosed with a mental health problem (Harms, Herian, Krasikova, Vanhove, & Lester, 2013; Lester, McBride, Bliese, & Adler, 2011). CSF consists of four components:

- **online self-assessment** to identify resiliency strengths known as the GAT, which was taken by more than 900,000 soldiers (Peterson, Park, & Castro, 2011);
- **online self-help modules** tailored to the results of the assessment (Fravell, Nasser, & Cornum, 2011);
- **universal resilience training** tailored to the needs of each level of the Army, developed based on the Penn Resiliency Program (PRP), a CBT-based SMT, which has been found to be effective in reducing depression and anxiety in school children (Gillham et al., 2007); and
- **master resilience trainers, who were trained** to provide resilience training within their units (Reivich, Seligman, & McBride, 2011).

The Australian Army resilience program, known as BattleSMART, is an SMT that focuses on the promotion of coping flexibility. Drawing on the goodness of fit hypothesis, coping flexibility is a skill that involves the selection of coping strategies that fit symptoms and stressors, based on appraisals of controllability (Cheng, 2001). To perform this skill, participants need to be able to notice differences in control and they need to be skilled in a

---

53 BattleSMART was developed following a study of recruits which found that resilience was related to causal attributions (controllable, temporary, specific), control expectancy and use of specific coping strategies (more problem-focused coping, more support seeking and lower levels of avoidant coping) (Cohn, 2005; Cohn & Pakenham, 2008). The findings of this study are consistent with the risk and protective factors outlined earlier.
broad repertoire of coping strategies (Lam & McBride-Chang, 2007). People who are intolerant of uncertainty, under time pressure to find solutions, or poor at appraising the controllability of stressors tend to score poorly on coping flexibility measures (Cheng, 2003). To promote coping flexibility, BattleSMART trained soldiers to make accurate appraisals of controllability in stressful situations and to respond to those appraisals by practising matching problem-focused and emotion-focused coping strategies (Cohn et al., 2010).

Coping strategies were taught in four domains: adaptive physiological responses (arousal reduction techniques); adaptive ways of thinking about situations (attribution retraining); and adaptive behaviours and emotion management (including engaging and accepting support). Cohn and Pakenham (2008) found that BattleSMART was able to enhance cognitive coping and lower psychological distress compared to a control group.

Building the resilience of NSWPF officers

In summary, the nature of police work, especially repeated exposure to traumatic events, places officers at risk of chronic stress. The police stress literature makes it clear that chronic stress has a harmful impact on officers’ physical and emotional health and their relationships, with related consequences for police organisations and the wider community. These consequences justify investment in evidence-based psychological interventions that minimise the impact of chronic stress on police. Although there is extensive literature on police stress management interventions, much of the literature is descriptive and inconclusive, with few well-designed and conducted empirical studies. Furthermore, most of the well-designed studies focus on tertiary interventions (which provide treatment to officers

---

54 An intolerance of negative emotions is thought to reduce flexibility by driving individuals to select solutions quickly to reduce their anxiety (Gunthert et al., 1999; O'Brien & DeLongis, 1996).

55 As mentioned earlier, problem-focused coping is more effective for controllable stressors, and emotion-focused coping is more effective for uncontrollable stressors (Forsythe & Compas, 1987).

56 Recruits are also provided with psycho-education on resilience and the flight-fight response, in addition to suicide risk awareness. Training was also offered to staff so they can reinforce the development of targeted behaviours during general training.
who are already experiencing stress-related dysfunction), with few published studies looking at interventions designed to prevent the development of stress-related dysfunction in police.

The current research aimed to address this gap, by designing and evaluating a resilience-building intervention that had the potential to prevent the development of stress-related dysfunction in officers of the NSWPF. It incorporated elements drawn from many SMTs, which were brought together based on the needs of police officers to achieve the goal of preventing chronic stress and depression. In addition to promoting fundamental coping and emotion regulation skills, the training targeted individual differences in risk and protective mechanisms that cause variation in symptom trajectories. Consistent with our review of risk and protective mechanisms, it targeted proximal psychological mechanisms related to multiple forms of psychopathology. The training objectives included:

- Enhance officers’ understanding of stress and their self-awareness of symptoms
- Equip officers with a broad repertoire of coping skills that could regulate a range of stressors and symptoms
- Foster the development of coping flexibility
- Maximise activation of Masten and Wright (2009)’s protective mechanisms (e.g. by promoting behaviours related to physical exercise, nutrition, sleep and help seeking)
- Minimise the impact of risk mechanisms, especially the cognitive-behavioural processes of avoidant coping, experiential avoidance, cognitive fusion, perseverative cognition and insecure attachment

While reducing risk mechanisms such as experiential avoidance is a worthy goal, as many therapists can attest, reducing avoidant coping is not a simple task, especially so in a policing context in which avoidant-coping habits are socialised. To address this issue, our program incorporated content from Acceptance and Commitment Therapy (ACT), a newer form of CBT which encourages acceptance and valued action (Bilich, 2009; Bond & Bunce,
The following section outlines the principles of ACT before explaining how ACT skills were incorporated into the current intervention.

**Acceptance and Commitment Therapy (ACT) and ACT-based resilience training**

ACT is a form of CBT that uses mindfulness and acceptance strategies, combined with behaviour change strategies, to reduce avoidance and increase psychological flexibility. It is based on a theory of language known as Relational Frame Theory (RFT) which was developed from the principles of functional contextualism (FC) (Hayes et al., 1999). FC is a philosophy in which the nature and function of events are understood in the context through which they occur. RFT proposes that language and cognition are dependent on relational frames that exist between events and words, words and words and words and events. An individual’s experiences shape the development of relational frames, in which meaning is transferred onto objects and arbitrary cues are created which control relational responses including unwanted and painful thoughts, feelings and sensations. While prior learning may predispose individuals to experience unwanted psychological reactions (e.g. via cognitive schemas or insecure attachment), under the ACT/RFT model of psychopathology, dysfunction only results when individuals take these experiences literally and engage in processes of experiential avoidance (Bond & Hayes, 2002; Hayes et al., 2006).

To counteract the development of dysfunction, ACT interventions target six related processes in order to reduce experiential avoidance and enhance psychological flexibility, defined as “the ability to contact the present moment more fully, and to change or persist in behaviour when doing so serves valued ends” (Hayes et al., 2006, p. 7). These processes are:

- Acceptance (a willingness to experience negative thoughts, feelings and sensations),
- Cognitive defusion (techniques that aim to reduce the literal quality of thoughts),

---

57 High experiential avoidance and high psychological flexibility refer to opposite ends of the same spectrum.
- Being present (experiencing the world directly as events occur rather than being dominated by mental experiences of the past or future),
- Self-as-context (a standpoint from which one can observe experiences),
- Values (behavioural patterns in domains such as family, career and physical fitness that are intrinsically rewarding (Wilson, Sandoz, Kitchens, & Roberts, 2010)), and
- Committed action (taking effective action linked to values).

Specifically ACT trains individuals to stay in the moment, as opposed to getting caught up in mental experiences of the past or future, to accept difficult experiences as they arise (including thoughts, emotions, memories), and to persist with actions consistent with their goals and values (Bilich, 2009; Bond & Bunce, 2000). By developing these skills, individuals become able to observe distressing thoughts, memories and emotions, without needing to control or get rid of them (Bond & Hayes, 2002). Over time, as they become more accepting of these experiences, they become less distressed. Within this context, individuals are more able to take actions towards goals without having to wait for their internal experiences to change.

The effectiveness of ACT at treating psychological distress is similar to traditional CBT (Hayes et al., 1999). Although it shares similar goals and change processes with traditional CBT, ACT can be distinguished by the emphasis that it places on different therapeutic processes (Mennin, Ellard, Fresco, & Gross, 2013). For example, unlike traditional CBT (Beck, 1995), ACT does not encourage challenging the content of thoughts and schema (e.g. “I am a failure”). From an emotion regulation perspective, while traditional CBT and ACT both foster adaptive emotion regulation, they do this by targeting different stages in the generation of emotion: with traditional CBT promoting antecedent-focused emotion regulation, and ACT counteracting maladaptive response-focused emotion regulation strategies (e.g. avoidance) (Hofmann & Asmundson, 2008). While ACT reduces
the believability of negative private events quickly, the frequency of these events takes time to reduce. In contrast, traditional CBT has been found to reduce the frequency of private events quickly, but their believability is reduced more slowly (Zettle & Hayes, 1986).

Although more comparison studies are required to determine if ACT is superior to more established treatments (Levin & Hayes, 2009), the use of ACT for resilience building and treating psychological distress across multiple settings is well supported by the literature. Meta-analyses of randomized control trials have found that ACT is effective at treating psychological disorders (Ost, 2014; Powers, Zum Vörde Sive Vörding, & Emmelkamp, 2009) and enhancing wellbeing (Fledderus, Bohlmeijer, Smit, & Westerhof, 2010).

ACT-based interventions have also been conducted to promote workplace mental health (Bond & Hayes, 2002; Flaxman & Bond, 2006) in media organisations (Bond & Bunce, 2000), local government organisations (Flaxman & Bond, 2010a, 2010b) and police organisations (Bilich, 2009). ACT has been found to be just as effective in reducing distress as stress inoculation training (Flaxman & Bond, 2010a) and just as effective in improving mental health and innovation propensity as an innovation training program designed to teach employees how to reduce stressors (Bond & Bunce, 2000). In both of these studies, changes in the ACT intervention were mediated by reductions in experiential avoidance (EA).

Another study found that the benefits of ACT were greater for participants who were more distressed at the beginning of training (Flaxman & Bond, 2010b). Bilich and Ciarrochi (2009) trialled an ACT-based intervention with 78 senior police officers in the NSW police. Over the course of 16 weeks, improvements were found in mental health and success at living family values, but no significant changes were found in levels of depression, stress or sick leave. Unlike other studies, improvements in mental health were not mediated by EA.\(^{58}\)

\(^{58}\) Bilich and Ciarrochi presented three possible explanations for the absence of acceptance as a mediator. The first being presentation bias, with police officers not wanting to be seen as avoiding issues, and secondly that the improvement in mental health may have been due to greater success at living their values. Alternatively, the lack of any significant changes for acceptance, depression, stress and sick leave could be because the officers
**Why use ACT to promote resilience in police officers?**

There are four main reasons why an ACT-based intervention was expected to be better suited than traditional-CBT SMTs for building the resilience of police officers. First, ACT is thought to be particularly beneficial for preventative interventions, due to its focus on building awareness of, and reducing experiential avoidance, which would reduce the need for recruits to engage in maladaptive coping when faced with stressors later in their careers (Biglan, Hayes, & Pistorello, 2008; Fledderus, Bohlmeijer, & Pieterse, 2010). These findings are likely to be especially relevant for police officers given their exposure to traumatic stressors, and their tendency to use avoidant coping strategies that are characteristic of PTSD, such as emotional detachment, dissociation or numbing (Pasillas et al., 2006).

Secondly, compared with other stress management programs, that focus on stress education and reduction of stress symptoms, ACT’s focus on achieving goals, and enhancing quality of life, is expected to activate the drive system of emotion regulation, which would be more rewarding for officers, and especially useful for preventing depression in response to loss and setbacks. The focus on values and goals is also likely to be relevant for police officers with high levels of avoidant coping, who may be unwilling to try non-avoidant coping strategies. By starting with an exploration of what they want, ACT provides an alternative reason for them to engage in training, and by highlighting how avoidant coping undermines their goals, ACT provides justification for changing behaviour (e.g. reducing avoidance). Finally, a values-based approach is expected to be more engaging and beneficial for psychologically healthy participants, who are likely to be the majority of participants in a universal intervention. Compared to programs focused on deficits, a focus on positive goals and outcomes in resilience interventions has been associated with several benefits including

---

included in the study were all high functioning and successful, and thus less likely to engage in experiential avoidance. This would be consistent with the findings of Flaxman and Bond (2010b), that the effects of an intervention are less detectable for individuals with low levels of distress.
broadening the appeal of programs to stakeholders, improving morale and motivation among staff, and greater effectiveness in reducing problems (Masten & Wright, 2009).

Thirdly, ACT skills activate the protective systems identified by Masten and Wright (2009). Self-regulation is promoted by teaching participants ways of persisting with valued activities despite the presence of distressing thoughts, memories and emotions. Agency and mastery motivation is nurtured by setting achievable goals that are valued and teaching ways to deal with barriers that may arise. Agency is also fostered by redirecting efforts away from unhelpful attempts to control uncontrollable private experiences that ultimately undermine one’s self efficacy and engender learned helplessness. Meaning making is promoted by encouraging reflection on values when adverse experiences occur and by accepting distress within a context of pursing valued goals (Strosahl, Hayes, Wilson, & Gifford, 2004). Attachment relationships are nurtured by enhancing the ability of participants to engage emotionally with others. Furthermore, the focus on goals, directs participants towards addressing skills deficits in ways that support attachment relationships (e.g. assertiveness, conflict resolution, negotiation and empathy) and problem solving (including identify solutions, planning, time management, prioritisation).

And finally, ACT’s focus on developing psychological flexibility also supports the development of coping flexibility skills, enabling participants to choose coping strategies that fit the nature of their stress symptoms and stressors. Through being more mindful of the needs of each situation, and though fostering acceptance, ACT reduces rigidity and enables participants to engage the most helpful way of coping with each situation.

Chapter Summary

In summary, this chapter contained the theoretical framework for this research program, including the rationale for the design of a resilience-training program that we trialled with the NSWPF. It drew together literature from multiple fields including stress,
policing, resilience, coping, emotion regulation and developmental psychopathology and occupational health psychology.

It is clear that chronic activation of the stress response is a large problem for organisations that is associated with a broad range of harmful consequences at many levels. While chronic stress is a problem for society in general, police are at particular risk due to regular exposure to traumatic stressors on the job. To address this problem, the NSWPF initiated this research to develop a chronic stress prevention program. This program was informed by an understanding of mechanisms that shape the impact of stressors together with the literature on stress interventions.

Despite being exposed to the same stressors, each officer in a group will experience a unique symptom trajectory. Resilience, the process of positive adaptation to stress, is the most common trajectory for police officers exposed to stress. Variation in symptom trajectories can be explained by each person’s mix of risk and protective mechanisms. Risk and protective mechanisms operate across multiple levels (biology, psychology and environment), with distal factors (from early childhood) shaping proximal factors.

We highlighted key factors that influence stressor exposure and reactivity, that are proximal and transdiagnostic (related to multiple forms of pathology). Biological risk factors included sensation seeking, sensory processing sensitivity, brain deficits related to emotion dysregulation. Environmental risk factors included factors that reduce social status and perceptions of controllability, and factors related to emotional neglect. Psychological risk mechanisms included neuroticism (reported to be the best predictor of police distress), maladaptive cognitive schemas, insecure attachment styles, and dysfunctional cognitive-behavioural processes such as cognitive fusion, experiential avoidance (socialised during police training) and perseverative cognition (especially involving negative self references).
Protective mechanisms included: problem solving, self-regulation, agency, meaning making, attachment relationships/social support and cultural beliefs. A particular emphasis in the literature is that the impact of stressors depends on cognitive appraisal and coping behaviours, which involve emotion regulation of threat, drive and contentment systems. Coping is effective at minimizing harm when there is a fit between the strategy and the nature of the stressor, with problem-focused coping found to be more effective for controllable stressors and emotion-focused coping for uncontrollable stressors.

While there are many studies demonstrating the effectiveness of CBT-based SMTs, there are few published trials with police. The present research aims to address this gap by trialling a resilience-building SMT that is well suited theoretically to building resilience in police officers, especially officers high in neuroticism and EA. The resilience-building SMT developed for the NSWPF incorporated elements drawn from many SMTs, brought together based on the needs of police officers to achieve the goal of preventing psychological injuries.

In addition to training officers in fundamental coping and emotion regulation skills, it also aimed to minimize risk mechanisms and maximize protective mechanisms. The program was universal (for all officers) and preventative (delivered before experiencing symptoms), and it targeted transdiagnostic factors to prevent the development of a range of problems, as opposed to preventing one specific problem. In order to reduce experiential avoidance and promote coping flexibility, the program incorporated content from Acceptance and Commitment Therapy (ACT). ACT content was considered to be especially beneficial due to its focus on values and goals, and because it promotes activation of many protective mechanisms. In the next chapter (Chapter 3) we describe the trial of our ACT-based resilience training program with students at the NSW Police academy, beginning with outlining hypotheses. Chapter 4 and 5 also outline other versions of the training program which have been adapted from the program outlines in Chapter 2.
CHAPTER 3: Study 1 - NSW Police Resilience Training Pilot study (2011)

Resilience Training program design

Based on the theoretical framework outlined in the previous chapter, an ACT-based resilience-training program was designed with the aim of preventing suffering (e.g. reducing mental illness) and enhancing functioning (e.g. increasing life satisfaction and supporting goal achievement) by promoting coping flexibility, minimising risk mechanisms (especially experiential avoidance) and maximising protective mechanisms. Given that police stress involves complex interactions between operational, organisational and non-work stressors (Paton et al., 2009), participants were encouraged to use these skills throughout their lives to manage the impact of personal stressors at work and vice versa. The program design was developed with reference to protocols of previous ACT-based SMTs (Bilich, 2009; Bond & Hayes, 2002; Flaxman & Bond, 2006) and coping skills programs (Frydenberg & Brandon, 2007). The program incorporated training in:

- A broad range of coping skills that could address the full range of stress symptoms and stressors (both work and personal) experienced by police. This included coping skills related to the protective systems identified by Masten and Wright (2009) (i.e. attachment relationships, problem-solving skills, self-regulation skills, agency and mastery motivation, meaning making and cultural traditions);
- Recognising and appraising stressor control and goal significance, and selecting and activating coping strategies that fit the level controllability, supported by ACT skills that promote psychological flexibility and reduce the need for experiential avoidance.

ACT skills training included mindfulness, acceptance and valued action, which in addition to promoting psychological flexibility, are expected to increase the ability of individuals to notice differences in control, and to use this information to cope more effectively (Bond et al., 2008; Bond & Bunce, 2003). For example, where control does not
exist over a stressor, participants were encouraged to accept the stressor and persist with valued actions, without resorting to maladaptive coping strategies. This capability is neatly captured by the serenity prayer by Niebuhr; “Grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference” (Bartlett & Kaplan, 2002, p. 735). A distinction was made between internal stressors (e.g. distressing thoughts, memories and sensations) and external stressors (e.g. difficult situations and events), based on ACT theory that controllability over internal stressors is generally poor. Participants were provided with demonstrations in ways of handling internal stressors without needing to change or avoid them.

Program Timing

Researchers recommend that interventions aiming to build resilience should target sensitive periods (Luthar & Cicchetti, 2000). A sensitive period for police officers is the transition from trainee to probationary officer. During this period, new recruits are socialised to suppress emotional expression (Paton et al., 2009), they become hardened and emotionally detached (Singleton & Teahan, 1978), and they experience increasing levels of depression and poorer mental health. This is especially so for those arriving with poor mindfulness and emotion identification skills (Williams et al., 2010). It was hoped that conducting the intervention during this transition would interrupt the socialisation of avoidant coping and promote greater psychological flexibility and resilience.

To ensure participants had sufficient opportunity to apply the skills it was recommended that training be conducted both before and after attestation (their graduation from the academy and swearing in as a probationary police officer). Unfortunately, this was not possible due to logistical challenges associated with delivering training to students working full-time and spread out across the state. The best alternative was to conduct the trial with trainees during their time at the police academy. While this was not ideal, it was
hoped that the student’s study pressures and placement experience would provide sufficient opportunities to practice the skills.

Two trials of the intervention were conducted, the first in 2011, and the second in 2012/2013. Both trials included a control group and training group in order to assess the effectiveness of the program. While specific details about each trial are outlined in the following chapters, in both cases, it was expected that relationships between mental health measures, resilience and the targeted mechanisms of change would be consistent with the theoretical framework. It was also expected that mental health would be enhanced by the intervention and that mental health improvements would be mediated by psychological flexibility. The following outlines detailed hypotheses for study 1;

1. Measures of mental health and resilience were expected to relate to the proposed mechanisms of change (higher scores on mindfulness, valued living and positive affect, and lower scores on experiential avoidance and maladaptive/unhelpful coping)

2. Training was expected to lead to greater improvements across time on mental health outcome measures (depression, anxiety, stress, PTSD symptoms, and general psychological distress) compared to the control condition

3. Training was expected to lead to greater improvements across time on proposed mechanisms of change (mindfulness, valued living, positive affect, psychological flexibility/experiential avoidance) compared to the control condition

4. Changes in the proposed mechanisms of change across time were expected to mediate changes in the outcome measures.

---

59 Positive affect was also examined to confirm its relationship to resilience (Fredrickson et al., 2003; Ong et al., 2006).
Method

Design

Participants were new students at the NSW Police Academy. To fit in with their policing studies, students participated in their tutorial groups, each having a maximum of twenty students. The research design was a two (Group: Training, Control) by three (Time: 1 pre-workshop, 2 during workshop, 3 after workshop) mixed design. Twelve tutorial groups (240 students) were invited to participate in the resilience training trial, six allocated to the intervention condition (the “Training Group”), and six allocated to the Control group. Both groups attended briefings where they were provided with an Information Form on the trial and invited to sign a consent form if they agreed to participate (See Appendix 2). Training group participants were advised they would be attending a series of workshops now, while control group participants were advised that they could attend the same workshops at the end of their police studies. While the NSWPF strongly encouraged students to participate, they were also advised that they would not be penalised if they chose not to participate.

The training schedule was adapted from the "2 + 1" method of delivery used by Bond and Bunce (2000) which comprised three half-day sessions: two on consecutive weeks and a third three months later (12 hours total). In order to fit in with the Police academy timetable, which is delivered in periods of two hours, the pilot training program was split into four, 110-minute workshops. Arrangements were made for both the training and control groups to complete online surveys containing key coping and mental health measures (see Appendix 5) on three occasions: before Workshop 1 (time 1), before Workshops 3 (Time 2) and immediately after Workshop 4 (Time 3). Participants would receive an email containing a link to the questionnaire with a request to complete it within a week. To encourage honest

---

60 These tutorial groups were formed at the beginning of the session by random allocation by university administrators, with minor adjustments to group lists made to ensure a consistent gender and age mix of students across the groups.

61 Those in the control group were offered to attend the training in 2012.
responding, the questionnaires were anonymous, with each participant’s responses linked across time with a unique code that was generated by the participant themselves in response to a series of questions.

**Participants**

A total of 189 participants completed the questionnaire at time 1, who were aged between 19 and 47 (M = 27.36, SD = 6.56). As can be seen in Figure 2, there was more than 50% attrition between time 1 and 2 in relation to both workshop attendance and the completion of the survey measures. Unfortunately, due to a timetabling error, both the Time 3 survey and workshop 4 were cancelled.

![Figure 2. Study Timeline and participant completion](image-url)
Participant demographics at time 1 by group are shown in Table 1. Chi-squared analyses revealed no significant differences on the demographics between the groups. The measures outlined on the following pages were completed at both time-points.

Mental health measures

*Depression Anxiety and Stress Scale* (Lovibond & Lovibond, 1995): The DASS comprises three, 7 item subscales that are designed to measure depression (“I felt that life was meaningless”), anxiety (“I was worried about situations in which I might panic and make a fool of myself”) and stress (“I found it difficult to relax”). Participants rate the extent to which each statement applied to them over the past 2 week period, on a Likert scale that ranges from “Did not apply to me at all” (0) to “Applied to me very much” (3). Scores on each subscale can range from 0 to 21, with the final score for each subscale calculated by summing the relevant items. At time 1 and 2 respectively, alpha coefficients for the stress subscale were .82 and .88, for the anxiety scale they were .74 and .84, and for the depression subscale they were .84 and .73.

Table 1. *Participant characteristics at time 1*

<table>
<thead>
<tr>
<th></th>
<th>Training (N=110)</th>
<th>Control (N=79)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>85</td>
<td>77%</td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>23%</td>
</tr>
<tr>
<td>Relationship Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>68</td>
<td>62%</td>
</tr>
<tr>
<td>Married</td>
<td>22</td>
<td>20%</td>
</tr>
<tr>
<td>Defacto relationship</td>
<td>18</td>
<td>16%</td>
</tr>
<tr>
<td>Separated</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Divorced</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Training (N=110)</td>
<td>Control (N=79)</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Children</td>
<td>None</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>One</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Two</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Three or More</td>
<td>4</td>
</tr>
<tr>
<td>Min Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bachelor degree</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Completed Post Graduate</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Completed Diploma</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Completed Year 12</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Trade Certificate</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Left school Before Year 12</td>
<td>1</td>
</tr>
</tbody>
</table>

*General Health Questionnaire-12 (GHQ) (Goldberg, 1978):* The GHQ is a 12 item scale that measures general health, in particular psychological distress (McDowell & Newell, 1996). Examples of items include “Have you recently….” “…felt constantly under strain??” and “…Been losing confidence in yourself?” Participants are asked to respond to each item using a Likert scale that ranges from “Not at all” (0) to “Much more than usual” (3). Scores range from 0 to 36, with the final score calculated by summing the items. Higher scores indicate greater psychological distress and mental ill-health. In the present study, alpha coefficients for the GHQ were .81 and .79 at time 1 and time 2, respectively.

*PTSD Checklist (Weathers, Huska, & Keane, 1991):* The PTSD Check list is a 17-item self-report measure of the 17 symptoms of PTSD. Examples of items include “How often have you been bothered by trouble falling or staying asleep?” and “How often have you been bothered by repeated, disturbing dreams of a stressful experience from the past”.

Participants respond to each item using a Likert scale that ranges from “Not at all” (1) to “Extremely” (5). Scores can range from 17 to 85, with the total score calculated by
summing the items. In the present study, alpha coefficients for the PTSD Checklist were .88 and .95 at time 1 and time 2, respectively.

**Coping measures**

*Acceptance and Action Questionnaire-II (Bond et al., 2011):* The AAQ-II is a 7 item measure that is used to assess an individual’s level of experiential avoidance. It is a revised version of the original Acceptance and Action Questionnaire I (AAQ-I). The scale contains statements such as “My painful memories prevent me from having a fulfilling life” and “Worries get in the way of my success”. Participants respond to the items on a Likert scale that ranges from “Never True” (1) to “Always True” (7), with the minimum score being 7 and the maximum being 49. High scores indicate greater psychological inflexibility. In the present study, alpha coefficients for the AAQ-2 were .88 and .95 at time 1 and Time 2, respectively.

*Brief COPE (Carver, 1997)* The Brief COPE is a 28 item measure that is used to measure what they have been doing to cope with stress over the past 2 months. The Brief COPE comprises 14 subscales of two items each: (a) Active Coping, (b) Planning, (c) Positive Reframing, (d) Acceptance, (e) Humor, (f) Religion, (g) Using Emotional Support, (h) Using Instrumental Support, (i) Self-Distraction, (j) Denial, (k) Venting, (l) Substance Use, (m) Behavioral Disengagement, and (n) Self-Blame. Participants respond to the items on a Likert scale that ranges from “I haven’t been doing this at all” (0) to “I’ve been doing this a lot” (3). Based on evidence that these factors tend to be either helpful or unhelpful, the Brief COPE can be separated into Helpful and Unhelpful Coping subscales (Carver, 1997), with unhelpful coping comprising self-distractions, denial, venting, substance use, behavioural disengagement and self-blame. At time 1 and 2 respectively, alpha coefficients for the helpful coping scale were .88 and .91 and .71 and .76 for the unhelpful coping scale.
Mindfulness (Brown & Ryan, 2003) The MAAS is a 15-item instrument that "assesses individual differences in the frequency of mindful states over time" (Brown & Ryan, 2003). The scale consists of items such as "I find myself doing things without paying attention". Participants respond to items on a 6-point scale that ranges from "Almost always" (1) to "Almost never" (6). Higher scores on the MAAS indicate a greater tendency towards mindful awareness (Brown & Ryan, 2003). In the present study, alpha coefficients for the MAAS were .89 and .95 at time 1 and Time 2, respectively.

Resilience (Block & Kremen, 1996) The Ego-Resiliency scale is a 14 item measure that is designed to measure trait psychological resilience. The scale consists of items such as "I quickly get over and recover from being startled," and "I enjoy dealing with new and unusual situations". Participants respond to items on a 4-point scale, ranging from "Does not apply at all" (1) to "Applies very strongly" (4). In the present study, alpha coefficients for the Resilience measure were .82 and .87 at time 1 and Time 2, respectively.

Positive Affect (Watson, Clark, & Tellegen, 1988) The positive affect subscale of the Positive and Negative Affect Schedule (PANAS) is a 10 item measure including items such as (active, alert, attentive). Participants were asked to read each emotion and indicate the extent to which they have felt the emotion during the past week on a scale from "Not at All" (1) to "Extremely" (5). In the present study, alpha coefficients for the PANAS positive affect scale were .90 and .94 at time 1 and Time 2, respectively.

Valued living (Wilson et al., 2010) The Valued Living Questionnaire (VLQ) is a two-part questionnaire that measure aspects of valued living. The first part assesses the importance of 10 domains of valued living (e.g., family, friendship, work) on a 10-point scale ranging from "Not at all important" (1) to "Extremely important" (10). The second part asks about how consistently the respondent is living according to their values in each of the 10 domains on a 10-point scale ranging from "Not at all consistent with my values" (1) to
“Completely consistent with my values” (10). A composite score is derived for each domain of valued living by multiplying the importance score by the consistency score to indicate the extent to which respondents are living consistently with their values in domains that are important to them. An overall composite score is obtained by calculating the mean of the composite scores for each domain. In the current study, alpha coefficients for the VLQ consistency subscale were .86 and .87 at time 1 and Time 2, respectively.

*Intervention*

An outline of the training program is shown in Table 2 and the workshop slides are contained in Appendix 2. Each workshop comprised a mix of group discussions, didactic teaching, private reflection and experiential exercises. To create a safe space for participants to explore personal issues, the importance of maintaining confidentiality was emphasised and written exercises were included to allow participants to explore their issues in private. Homework exercises were given at the end of each workshop. While they were not monitored, the importance of these assignments was heavily emphasized and at the start of each workshop, assignments from previous workshops were reviewed and misunderstandings and homework difficulties were addressed.
### Table 2  Program Outline – 2011 Pilot Study

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Delivered at NSWPF Academy on May 18/19, 2011</strong>&lt;br&gt;  - Develop participants’ understanding of stress generally including adaptive and maladaptive coping strategies.&lt;br&gt;  - Building participants’ awareness of what they find stressful, their typical patterns of coping and the effectiveness of those responses.&lt;br&gt;  - Introductory ACT skills (acceptance, mindfulness, defusion) to help cope with distressing thoughts, feelings and memories without resorting to maladaptive coping strategies.&lt;br&gt;  <em>Handouts: Workshop slides and Workbook 1</em></td>
</tr>
<tr>
<td>2</td>
<td><strong>Delivered at NSWPF Academy on July 27/28, 2011</strong>&lt;br&gt;  - Understanding the relationship between values, goals and stress.&lt;br&gt;  - Coping flexibility - Assessing control and selecting strategies that fit.&lt;br&gt;  - Exploring action and acceptance strategies - for both internal stressors and difficult situations.&lt;br&gt;  - Placement scenarios exercise – identifying helpful coping strategies.&lt;br&gt;  <em>Handouts: Workshop 2 slides, Workbook 2 and Scenarios</em>&lt;br&gt;  <em>Many disappointed that this workshop was scheduled during exam period</em></td>
</tr>
<tr>
<td>3</td>
<td><strong>Delivered at NSWPF Academy on September 1/2, 2011</strong>&lt;br&gt;  - Clarifying values and Committing to Action (Card sort exercise).&lt;br&gt;  - Placement debrief (private reflection and group discussion), exploring difficult internal experiences (sensations, memories, thoughts and emotions) and difficult situations, and techniques used to cope effectively.&lt;br&gt;  <em>Handouts: Workshop 3 slides and Workshop 3 Worksheet</em></td>
</tr>
</tbody>
</table>
NOTE: Never held due to NSWP timetabling error

- Dealing with critical incidents (documentary – “The Guns of Adjungbilly”), reflections on how the officers reacted during and after the situation, including exploration of helpful ways of coping
- Exploration of conflict resolution strategies including de-escalation, perspective taking, conversation planning, assertiveness and negotiation
- Program review and wrap up

Handouts: Workshop 4 slides and Interpersonal skills handout

To ensure the intervention adhered to ACT principles, an experienced facilitator of ACT interventions, a clinical psychologist with experience working with police officers, was engaged to co-facilitate the training with the author. To help contextualise the content, a current or former police officer attended each workshop and provided anecdotes.
Results

Characteristics of the participants

While participant demographics were described in the previous section, Table 3 displays the means and standard deviations of the main variables at Time 1. Most participants appeared to be psychologically healthy. On the Depression (DASS-D) subscale, at Time 1, training group (TG) participants scored an average of 1.81 (range from 0 to 13) and control group (CG) participants scored an average of 1.83 (range from 0 to 19), with both scores falling in the normal (non-distressed) range for depression (Lovibond & Lovibond, 1993). At Time 2, the average depression scores were slightly lower for the TG (2.00) and higher for the CG (1.51), but both remained in the normal range.

On the Anxiety (DASS-A) subscale, at Time 1, TG participants scored an average of 2.43 (range from 0 to 10) and CG participants scored an average of 2.61 (range from 0 to 15), with both scores falling in the normal (non-distressed) range for anxiety (Lovibond & Lovibond, 1993). At Time 2, the average anxiety scores were slightly lower for both groups (TG = 1.94; CG = 1.75), but both remained in normal range.

On the Stress (DASS-S) subscale, at Time 1, TG participants scored an average of 4.22 (range from 0 to 15) and CG participants scored an average of 4.81 (range from 0 to 16), with both scores falling in the normal (non-distressed) range for stress (Lovibond & Lovibond, 1993). At Time 2, the average stress scores were slightly lower for both groups (TG = 3.63; CG=3.80), but both remained in the normal range.

On the PTSD Checklist (PCL-C) scale, at Time 1, TG participants scored an average of 23.37 (range from 17 to 52) and CG participants scored an average of 24.89 (range from 17 to 58), with both scores falling well below cutoffs for PTSD diagnosis. At Time 2, the average PCL-C scores were slightly higher for both groups (TG = 26.71; CG = 26.45).
On the *General Health Questionnaire* (GHQ-12) scale, at Time 1, TG participants scored an average of 11.07 (range from 0 to 28) and CG participants scored an average of 10.96 (range from 2 to 25). At Time 2, the average GHQ-12 scores were slightly higher for both groups (TG = 11.57; CG = 11.55).

On the *AAQ-II scale*, which measures *experiential avoidance*, at Time 1, TG participants scored an average of 14.83 (range from 7 to 31) and CG participants scored an average of 15.65 (range from 7 to 44). At Time 2, the average AAQ-II scores were slightly higher for both groups (TG = 16.03; CG = 15.57).

On the *Unhelpful coping scale*, at Time 1, TG participants scored an average of 16.64 (range from 12 to 26) and CG participants scored an average of 17.74 (range from 12 to 29). At Time 2, the average unhelpful coping scores were slightly higher for both groups (TG = 17.53; CG = 18.07).

On the *Helpful coping scale*, at Time 1, TG participants scored an average of 36.25 (range from 16 to 56) and CG participants scored an average of 37.60 (range from 16 to 59). At Time 2, the average helpful coping scores were lower for both groups (TG = 34.42; CG = 35.95).

On the *Mindfulness* scale, at Time 1, TG participants scored an average of 4.56 (range from 3.27 to 6) and CG participants scored an average of 4.43 (range from 2.93 to 6). At Time 2, the average mindfulness scores were slightly lower for both groups (TG = 4.17; CG = 4.37).

On the *Value Living* scale, at Time 1, TG participants scored an average of 57.18 (range from 10 to 100) and CG participants scored an average of 51.46 (range from 10.3 to 88.6). At Time 2, the average values progress scores were slightly lower for both groups (TG = 54.99; CG = 49.12).
On the Resilience scale, at Time 1, TG participants scored an average of 42.87 (range from 25 to 56) and CG participants scored an average of 43.14 (range from 31 to 53). At Time 2, the average resilience scores were slightly lower for both groups (TG = 41.09; CG = 40.72). On the Positive Affect scale, at Time 1, TG participants scored an average of 40.46 (range from 16 to 50) and CG participants scored an average of 41.45 (range from 28 to 50).

Correlations between the mental health and process variables (Hypothesis 1)

Table 3 displays the descriptive statistics and Pearson correlations for the pilot study variables. The relationships between variables at time 1 were as expected, with higher scores on psychological distress measures (Depression, Anxiety, Stress, GHQ-12, and PTSD), and lower scores on resilience, all being strongly correlated to higher scores on behaviours that were discouraged in the intervention (unhelpful coping and experiential avoidance (AAQ-II)) and largely correlated to lower scores on positive affect and the behaviours promoted by the intervention (mindfulness and valued living). Helpful coping was unrelated to resilience and positively correlated to increased distress.

Regressions of the mechanisms of change on outcome measures (Hypothesis 1)

Multiple regression analyses were conducted on the overall sample at time 1, to examine whether the proposed mechanisms of change (experiential avoidance, mindfulness, values progress, positive affect and unhelpful coping) predicted the outcome measures (depression, anxiety, stress, PTSD, GHQ and resilience) (see Table 4)\textsuperscript{62}. Using backwards-stepwise regression\textsuperscript{63}, this involved modelling all potential predictors and removing redundant predictors until the most parsimonious model was found.

\textsuperscript{62} As a universal program that aimed to influence multiple outcomes, the intervention targeted transdiagnostic process measures. While it was not expected that each process measure would be a unique predictor of all of the outcome measures, given the limited time available for the program, it was important to confirm that each process measure had a unique impact on at least one outcome in order to justify its ongoing inclusion.

\textsuperscript{63} Backwards-stepwise regression was used in the absence of any theory offering suggestions regarding the relative contribution of the different process variables to the outcome measures in a police setting.
<table>
<thead>
<tr>
<th>Scale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>—</td>
<td>.56**</td>
<td>.70**</td>
<td>.64**</td>
<td>.54**</td>
<td>.52**</td>
<td>-.27**</td>
<td>-.33**</td>
<td>.53**</td>
<td>-.38**</td>
<td>.29**</td>
<td>-.20*</td>
</tr>
<tr>
<td>Depression</td>
<td>—</td>
<td>.64**</td>
<td>.69**</td>
<td>.55**</td>
<td>.55**</td>
<td>-.16*</td>
<td>-.34**</td>
<td>.54**</td>
<td>-.34**</td>
<td>.26**</td>
<td>-.32**</td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td>—</td>
<td>.64**</td>
<td>.53**</td>
<td>.57**</td>
<td>-.31**</td>
<td>-.39**</td>
<td>.55**</td>
<td>-.47**</td>
<td>.37**</td>
<td>-.24**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTSD</td>
<td>—</td>
<td>.47**</td>
<td>.58**</td>
<td>.27**</td>
<td>-.35**</td>
<td>.71**</td>
<td>-.51**</td>
<td>.31**</td>
<td>-.21**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHQ-12</td>
<td></td>
<td>.44**</td>
<td>-.34**</td>
<td>-.39**</td>
<td>.49**</td>
<td>-.33**</td>
<td>.15</td>
<td>-.41**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unhelpful Coping</td>
<td></td>
<td>-.20**</td>
<td>-.18*</td>
<td>.61**</td>
<td>-.45**</td>
<td>.54**</td>
<td>-.25**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td></td>
<td>.29**</td>
<td>-.37**</td>
<td>.26**</td>
<td>-.02</td>
<td>.53**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valued Living</td>
<td>—</td>
<td>-.33**</td>
<td>.29**</td>
<td>.05</td>
<td>.31**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experiential Avoidance</td>
<td>—</td>
<td>-.54**</td>
<td>.41**</td>
<td>-.35**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mindfulness</td>
<td>—</td>
<td>-.32**</td>
<td>.20*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helpful Coping</td>
<td>—</td>
<td>-.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Affect</td>
<td>—</td>
<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><strong>M</strong></td>
<td>2.51</td>
<td>1.82</td>
<td>4.47</td>
<td>24.03</td>
<td>11.02</td>
<td>17.13</td>
<td>42.99</td>
<td>54.62</td>
<td>15.19</td>
<td>4.50</td>
<td>36.86</td>
<td>40.91</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>2.66</td>
<td>2.75</td>
<td>3.47</td>
<td>5.39</td>
<td>5.59</td>
<td>17.99</td>
<td>6.33</td>
<td>0.72</td>
<td>9.22</td>
<td>5.98</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p<.01, *p<.05; two-tailed
Table 4  *Multiple regression analyses predicting mental health measures*

<table>
<thead>
<tr>
<th>Outcome variable</th>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>Adjusted $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Unhelpful Coping</td>
<td>.26**</td>
<td>.06</td>
<td>.34</td>
<td>.39**</td>
</tr>
<tr>
<td></td>
<td>Valued Living</td>
<td>-.03*</td>
<td>.01</td>
<td>-.19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experiential Avoidance</td>
<td>.12**</td>
<td>.03</td>
<td>.27</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td>Unhelpful Coping</td>
<td>.34**</td>
<td>.07</td>
<td>.36</td>
<td>.44**</td>
</tr>
<tr>
<td></td>
<td>Valued Living</td>
<td>-.04*</td>
<td>.01</td>
<td>-.24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experiential Avoidance</td>
<td>.082</td>
<td>.04</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>-.74*</td>
<td>.34</td>
<td>-.16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTSD-CL</td>
<td>Unhelpful Coping</td>
<td>.38*</td>
<td>.13</td>
<td>.20</td>
<td>.55**</td>
</tr>
<tr>
<td></td>
<td>Valued Living</td>
<td>-.05*</td>
<td>.02</td>
<td>-.12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experiential Avoidance</td>
<td>.52**</td>
<td>.08</td>
<td>.48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>-1.23</td>
<td>.63</td>
<td>-.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHQ</td>
<td>Unhelpful Coping</td>
<td>.35*</td>
<td>.12</td>
<td>.23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Valued Living</td>
<td>-.07**</td>
<td>.02</td>
<td>-.22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experiential Avoidance</td>
<td>.18*</td>
<td>.07</td>
<td>.21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Positive Affect</td>
<td>-.19*</td>
<td>.06</td>
<td>-.21</td>
<td>.37**</td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>Experiential Avoidance</td>
<td>-.19*</td>
<td>.06</td>
<td>-.22</td>
<td>.31**</td>
</tr>
<tr>
<td></td>
<td>Positive Affect</td>
<td>.42**</td>
<td>.07</td>
<td>.45</td>
<td></td>
</tr>
</tbody>
</table>

Note.  B values are unstandardized coefficients.  * p < .05.  ** p < .001

In the first regression model, 39% of variation in depression scores, $F_{3,161} = 35.13, p=.000$, could be explained by three significant predictor variables: increased unhelpful coping ($\beta = .34, p < .001$), increased experiential avoidance ($\beta = .27, p = .001$), and decreased valued living ($\beta = .19, p = .004$).
In the second regression model, 35% of variation in anxiety scores, $F_{3,161} = 35.20$, $p = .000$, could be explained by three significant predictor variables: increased unhelpful coping ($\beta = .31, p < .001$), increased experiential avoidance ($\beta = .27, p = .002$), and decreased valued living ($\beta = .20, p = .002$).

In the third regression model, 44% of variation in stress scores, $F_{4,161} = 32.53$, $p < .001$, could be explained by four predictor variables: increased unhelpful coping ($\beta = .36, p < .001$), increased experiential avoidance ($\beta = .15, p = .062$), decreased valued living ($\beta = -.24, p < .001$) and decreased mindfulness ($\beta = -.16, p = .033$).

In the fourth regression model, 55% of variation in PTSD scores, $F_{4,161} = 49.57$, $p < .001$, could be explained by four predictor variables: increased unhelpful coping ($\beta = .20, p = .005$), increased experiential avoidance ($\beta = .48, p < .001$), decreased valued living ($\beta = -.12, p = .036$) and decreased mindfulness ($\beta = -.13, p = .052$).

In the fifth regression model, 37% of variation in GHQ scores, $F_{4,161} = 24.70$, $p < .001$, could be explained by four predictor variables: increased unhelpful coping ($\beta = .23, p = .004$), increased experiential avoidance ($\beta = .21, p = .013$), decreased valued living ($\beta = -.22, p = .001$) and decreased positive affect ($\beta = -.21, p = .003$).

In the sixth regression model, 31% of variation in resilience scores, $F_{2,161} = 37.24$, $p < .001$, could be explained by two predictor variables: increased positive affect ($\beta = .45, p < .001$), and decreased experiential avoidance ($\beta = -.22, p = .002$).

In summary, consistent with the Acceptance and Commitment literature outlined in the previous chapters, the most common predictors of psychological issues were increased unhelpful coping, increased experiential avoidance and decreased valued living. Mindfulness
was found to be specifically relevant to decreased stress and PTSD and positive affect relevant to decreased GHQ and increased resilience.

**Participant attrition**

Between the surveys at time 1 and time 2, 77 training group participants (70%) dropped out of the program. The large drop in training attendance from Workshop 1 and Workshop 2 was accompanied by complaints from students about the workshops being scheduled during their exam preparation period. Comparisons between training group participants who stayed in the program and those that dropped out revealed significant differences at time 1 in the average scores of both mindfulness (Stay = 4.33; Go = 4.67) and anxiety (Stay = 3.27; Go = 2.04), with participants who stayed in the program being significantly less mindful, \( t(91) = -2.23, p < .05 \), and significantly more anxious, \( t(103) = 2.38, p < .05 \). No other significant differences were found between those that stayed versus left.

**Impact of the training program (Hypotheses 2 to 4)**

To assess the impact of the training, a 2 (Group: Intervention, Control) x 2 (Time: Time 1, Time 2) repeated measures ANOVA was conducted for each of the mental health and coping measures. Descriptive statistics for both the control and training groups at time 1 and 2 are shown in Table 5 together with a summary of the test findings. While no main effects were found for group, significant main effects for time were found on five variables, namely decreasing anxiety (Cohen’s \( d = 0.51 \)), stress (\( d = 0.35 \)), resilience (\( d = 0.37 \)), helpful coping (\( d = 0.33 \)) and positive affect (\( d = 0.69 \)). In addition, a marginally significant increase was found in PTSD scores over time, and a marginally significant difference between the groups was found on valued living (the training group reporting greater levels of valued living relative to the control group). Significant Time by Group interaction effects were NOT found on any of the process and outcome measures. As such, in the absence of significant intervention effects, the mediation analyses related to hypothesis 4 were not conducted.
Nonetheless, despite the absence of significant intervention effects, the participants did respond well to the workshops, commenting that they normalised mental health issues and encouraged them to be more proactive in dealing with stress. Participants also indicated the program had left them feeling empowered to cope with future on-the-job challenges and reported finding the skills helpful to cope with stressors related to living at the academy, such as heavy study commitments, being away from family and friends, disappointments related to placements and making sense of their experiences on placement.

*Test Assumptions*

The data was examined to ensure it met the assumptions of parametric tests. Where the assumptions were violated the following steps were taken to confirm significant findings:

- Significant Pearson correlations involving skewed variables (anxiety, depression, stress, PTSD, experiential avoidance, and unhelpful coping) were confirmed by conducting an secondary analysis using Spearman’s non parametric correlation.
- A second regression analysis was conducted using log transformations of DVs (PTSD, Depression, Stress and Anxiety) that violated the assumption of heteroscedasticity of variance in the standardized residuals.
- The Mann Whitney Test was used to confirm that there was a significant difference between those that stayed vs left in terms of their level of Anxiety
- The Wilcoxon Signed Ranks Test was used to confirm that there were significant differences in Anxiety and Stress (both skewed) between time 1 and time 2
### Table 5 Descriptive Statistics and Repeated Measures ANOVAs for the matched sample

<table>
<thead>
<tr>
<th>Outcome variable</th>
<th>Control (N = 40)</th>
<th>Training (N = 33)</th>
<th>ANOVA (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Time 1</td>
<td>Time 2</td>
<td>Time 1</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Depression</td>
<td>1.80</td>
<td>2.15</td>
<td>2.03</td>
</tr>
<tr>
<td>Anxiety</td>
<td>2.88</td>
<td>2.72</td>
<td>1.78</td>
</tr>
<tr>
<td>Stress</td>
<td>5.35</td>
<td>3.32</td>
<td>3.83</td>
</tr>
<tr>
<td>PTSD</td>
<td>25.40</td>
<td>6.05</td>
<td>26.73</td>
</tr>
<tr>
<td>GHQ</td>
<td>10.98</td>
<td>4.61</td>
<td>11.68</td>
</tr>
<tr>
<td>Unhelpful Coping</td>
<td>17.93</td>
<td>3.20</td>
<td>18.35</td>
</tr>
<tr>
<td>Helpful Coping</td>
<td>37.15</td>
<td>8.23</td>
<td>35.73</td>
</tr>
<tr>
<td>Experiential Avoidance</td>
<td>15.54</td>
<td>5.30</td>
<td>16.10</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>4.37</td>
<td>0.64</td>
<td>4.36</td>
</tr>
<tr>
<td>Valued Living</td>
<td>48.93</td>
<td>14.57</td>
<td>47.29</td>
</tr>
<tr>
<td>Resilience</td>
<td>42.50</td>
<td>4.90</td>
<td>40.36</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>41.82</td>
<td>4.07</td>
<td>36.03</td>
</tr>
</tbody>
</table>

Note. ** p < .05. *** p < .01, * p = .068
Discussion

The current study was intended to pilot and test the effectiveness of an ACT-based resilience training intervention with a group of police recruits. Consistent with hypothesis 1 and the literature outlined in the theoretical framework, better mental health and resilience were related to higher scores on positive affect and the mechanism-type variables targeted by the intervention (valued living and mindfulness), and lower scores on the mechanisms that were discouraged by the intervention (experiential avoidance and unhelpful coping) (Bond & Hayes, 2002; Hayes et al., 2006) (Wilson et al., 2010). In addition, the regression analyses demonstrated that the targeted mechanisms, when combined, accounted for a large amount of variance in the mental health outcome measures (ranging from 31% for resilience to 55% for PTSD symptomatology). Furthermore, most of the mechanisms remained significant predictors of multiple distress measures when combined in the one statistical model, apart from mindfulness, which contributed unique variance for two mental health measures. In addition to the findings above, it is interesting to note that while resilience was negatively correlated to unhelpful coping and unrelated to helpful coping, both helpful and unhelpful coping were positively correlated to increased distress. Furthermore, the correlations with distress were smaller for helpful coping compared to unhelpful coping, (i.e. the correlation between anxiety and helpful coping being .29 versus .52 for unhelpful coping). This difference may be explained by the direction of causality, with both helpful and unhelpful coping strategies engaged by participants in response to distress, but only unhelpful coping led to additional distress. This additional distress is consistent with the finding that greater levels of unhelpful coping were related to lower resilience (Fledderus, Bohlmeijer, & Pieterse, 2010; Kashdan et al., 2006). It is also interesting to note that helpful coping was unrelated to resilience and significantly related to more experiential avoidance and less mindfulness. This suggests that simply increasing the use of helpful coping is not going to prevent psychological injuries, possibly because coping strategies that are labelled
helpful may sometimes be engaged for the purpose of experiential avoidance. For example, engaging problem solving to cope with something that is beyond one’s control, could merely be a way to avoid facing up to reality and accepting that it cannot be controlled. This provides further support for focusing instead on developing coping flexibility and reducing experiential avoidance as opposed to promoting use of “so called” helpful coping activities for all situations.

Hypotheses two to four related to the effectiveness of the intervention. They predicted that, compared to the control group participants, training participants would experience improvements across time on both the mental health outcome measures and the proposed mechanisms of change, and that improvements in the outcome measures across time would be mediated by the proposed mechanisms of change. Inconsistent with these hypotheses, significant time by group interactions between time 1 and 2 were not found on any of the variables and the mediation analyses could not conducted. However, it is not possible to make conclusions regarding hypotheses two to four due to: 1) The small number of participants reducing the power of the tests; 2) The fact that only half the program was delivered, and 3) The possibility of a floor effect in which symptomology changes are not found when participants are well. Considering that the majority of participants in the current study were psychologically healthy at time 1, a floor effect is quite likely, especially given that it has been found in previous ACT-Based stress management training (Flaxman & Bond, 2010b). Related to the effectiveness of the intervention, was the large number of students who dropped out of resilience training between workshops 1 and 2. High attrition is of great concern because in the absence of attending training, these participants may be more vulnerable to developing psychological injuries in the future.

64 In addition to high levels of training attrition, there was also a high attrition rate for survey completion, partly due to difficulties accessing the online survey on the police academy computers.
Looking beyond the intervention’s effectiveness, it is interesting to note the significant changes experienced by recruits during their first 15 weeks at the police academy (between time 1 and 2), including reductions in stress, anxiety, resilience, helpful coping and positive affect and a marginal increase in PTSD symptomatology. While reductions in anxiety and stress likely reflect healthy adjustment by recruits to life at the academy, the reduction in resilience, helpful coping and positive affect is of concern, raising questions about the long-term impact of police training and socialisation on mental health. Also of concern is the marginal increase in PTSD symptomatology, which is consistent with the experience of students who were exposed to traumatic events on their placement.

**Recommendations for further research**

While it was not possible to make any conclusions from the study about the effectiveness of the resilience training program, given that it was well received by those who attended, and that the correlations and regressions confirmed the targeted mechanisms to be related to better mental health outcomes as expected, the NSWPF deemed the program worthy of additional research, and chose to run a follow-up trial in 2012. In order to identify issues that needed to be addressed if the program was to have a positive and lasting impact on the wellbeing of recruits, ten months after the third workshop, a random group of training participants were contacted by phone and invited to provide additional feedback on the pilot program. Eleven recruits (six male, five female), who were all probationary constables at the time, provided the feedback summarised in Table 6.

While the pilot study revealed several problems with the training program and the evaluation, it was comforting to find that the size of the variance in the mental health measures that was explained by the targeted mechanisms was large and significant in a policing context (e.g. the mechanisms explained as much as 55% of variation in PTSD symptomatology).

---

65 These results should be interpreted with consideration of the possibility of family-wise error, with the probability of making one or more type I errors (significant findings that are actually false), being inflated by the large number of tests that were performed.
symptomatology). As such, rather than change the targeted mechanisms, the recommended focus for the next trial was on reducing attrition and maximising knowledge retention.

Table 6  
Feedback on the pilot training program from the follow-up calls

<table>
<thead>
<tr>
<th>Category</th>
<th>Participants’ reflections on the program</th>
</tr>
</thead>
</table>
| Attrition              | All reported attending workshop 1, eight reported attending workshop 2, and six reported attending workshop 3. The main reasons for not attending workshops were to use the time to study and a belief that the resilience training was not immediately relevant.  
- “Resilience Training didn’t count towards grades.”  
- “You had to grab every moment you could to study.”  
- “It was hard to understand why the program was relevant, as we hadn’t been on the job at the time.”  
- “There was a lot of negativity towards the program because students in the control group didn’t have to do it.”  
  - It was unfair to do an extra class when we were already so busy (sic)  
  - Some students were unwilling to be seen attending workshops if their peers chose not to attend |
| Facilitation           | Almost all felt understood and respected by the facilitators, and felt the facilitators were credible and competent.                                                                                                                                                                                                                   |
| Most helpful content   | Most frequently endorsed content:  
- Understanding stress and the "fight flight response"  
- Clarifying values and goals  
- Learning about Acceptance (as opposed to Avoidance)  
- Listening to former officers relate the content back to real experiences on the job  
- Listening to other students share their experiences on placement |
| Reading materials      | Very few read the workbooks and coaching emails                                                                                                                                                                                                                                                                                      |
| Skills practice        | Very few practised the skills                                                                                                                                                                                                                                                                                                        |
| Retention              | Many reported forgetting the content.                                                                                                                                                                                                                                                                                              |
| Impact                 | Five of the 11 participants reported that they changed the way they cope with stress after attending the workshops                                                                                                                                                           |

<table>
<thead>
<tr>
<th>Category</th>
<th>Participants’ suggested improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop timing</td>
<td>Most believed that the program should not be scheduled during exam periods or in spare periods, and not on full days when students are mentally exhausted. Some believed the training would be more effective if it was conducted later, in the first six months of the job.</td>
</tr>
</tbody>
</table>
| Encouraging practice   | Suggestions included:  
- Use scenarios to get participants thinking about applying the skills  
- Don’t overload, simplify and focus on one thing at a time  
- Relate the workshops to immediate challenges.  
- Set an assignment                                                                                                                                                                                                                                                   |
| Police involvement     | To improve engagement, students suggested that uniformed officers should play a bigger role in the delivery                                                                                                                                                                 |
| Content                | Several believed the content should be more clearly related to policing, with less psychology jargon                                                                                                                                                                      |
| Delivery format        | A common request was to make the workshops more interactive, by including exercises, quizzes and group discussions                                                                                                                                                     |
| Attendance             | Given the investment of time required to attend, many believed it would be fairer if attendance was compulsory for all new recruits                                                                                                                                                                                              |
| Rationale              | Many reported that the importance of the program needed to be clearer, and |
Focusing on attrition, it was not surprising that training participants would drop out of a voluntary program to study for exams when considering the demanding workload and the amount of time and money that students invest into their training. That said, it was interesting to note that resilience training attrition was lower for participants with higher levels of anxiety and lower levels of mindfulness, presumably because they had an immediate need to learn the skills. Beyond the demanding workload, another likely contributor to the high attrition rate was socialisation into the police culture, in particular emotional detachment and stigma related to mental illness and expressing emotional vulnerability (Carlan & Nored, 2008; Williams et al., 2010).

The nature of stigma and its impact in the workplace was illustrated in private conversations between the research team and experienced NSWPF officers, who described common beliefs in the organisation that officers should control their emotions, and that emotional distress represented a character defect associated with unreliability. While such stigma is not surprising given that police need to appear strong and confident in handling perpetrators of crime, stigma is a major problem for the NSWPF because it deters officers from acknowledging emotional distress amongst peers or seeking treatment (Corrigan, 2004). There is a fear that revealing distress will undermine social standing and career progression.66

An examination of attrition patterns in study 1 reveals that stigma was also likely to be having a negative influence on resilience-training participation. Of particular note, were large differences in attrition between tutorial groups, and increases in attrition as the recruits were socialised into the police culture. Furthermore, in groups with high attrition, it was

66 In the military, more than a third of soldiers believe requesting psychological help would harm their careers (Casey Jr, 2011).
common to hear comments from influential group members such as “I don’t need to attend resilience training because I don’t get stressed”. Of course, when resilience training is framed as for “stressed” people, anyone that kept attending after their peers dropped out risked being seen as weak or different, and losing social status. So it was not surprising that most of the participants in a group tended to drop out at the same time.

The second problem to be addressed was poor knowledge retention. This is not surprising given the large gap between workshop 1 and 2 (12 weeks), and that very few participants read the workbook and coaching emails, or practised the skills. Given that skills practice and reading the materials was voluntary, it follows that participants would be less likely to practise and read the materials if they believed there was no current need for the skills (e.g. they were not stressed at the time), nor a perceived future need (e.g. they could not see the future relevance to them as a police officer), or if practising the skills was stigmatised. Retention was especially challenging given that promoting psychological flexibility, a goal of the training was inconsistent with the socialisation of emotional detachment. To minimise attrition and maximise knowledge retention in study 2, the problems identified in the pilot study were addressed through the following recommendations:

• Reduce the impact of stigma and competing priorities by making training attendance and survey completion a compulsory part of broader police training
• Remove all other impediments to attending the workshops, including not scheduling workshops during exam study periods
• Deliver the first 2 workshops within a short time period (3 weeks) to maximise and reinforce learning and clarify any misunderstanding
• Move values and goals clarification to the first workshop to make it more immediately beneficial to non-stressed participants
- Schedule workshops 3 and 4 before and after the participants’ placement and use students’ placement experiences to demonstrate the relevance of the program and encourage skills application
- Include phone coaching calls to check in individually with students to address issues that they may not be willing to discuss in the groups, and to motivate students to practise the skills
- Revise the program content with advice from experienced NSWPF officers, to remove jargon, and make it simpler, more interactive and more relevant to policing
- Arrange for experienced and uniformed police officers to attend the workshops, share their experiences and highlight the relevance of the program
- Conduct a literature review into training effectiveness and training transfer and identify any other changes that could maximise the effectiveness of the revised program

Conclusions

In this chapter the design of an ACT-based resilience training program for NSW Police and its implementation has been outlined. A number of issues arose during the implementation phase which prevents a full analysis of effectiveness. Areas for improvement were identified and have been incorporated into the main study (see Chapter 4). What has been revealed in the findings of this chapter are that (a) better mental health is associated with the proposed mechanisms of change (increased valued living, mindfulness, and positive affect, and decreased experiential avoidance and unhelpful coping) and (b) the mechanisms of change did account for a large amount of variance in the mental health outcome measures. These findings indicate that in line with the existing literature the intervention is directed at important factors that serve to build resilience.
CHAPTER 4: Study 2 - NSW Police Resilience Training Main Study (2012/13)

Training effectiveness

In order to justify the investment of NSWPF resources in delivering resilience training, it is important to assess and maximise the effectiveness of the training. The most widely applied training evaluation framework is “Kirkpatrick’s four levels”, which include:

1. Participants’ level of satisfaction with the training (reactions)
2. How much participants learned from the program (retention)
3. Changes in behaviours on the job
4. The workplace impact (Salas & Cannon-Bowers, 2001)

If we apply Kirkpatrick’s framework to the resilience-training program in study 1, we find that the initial positive reactions from participants were offset by reports of poor retention and skills practice 12 months later. In terms of workplace impact, while the ultimate goal of resilience training was the prevention of work-related psychological injuries, assessing this requires tracking the participants over many years, during which they would have been exposed to a range of stressors on the job. Unfortunately, we can only make tentative conclusions about workplace impact in the current study because we only had access to the participants for a few months at the academy. Nonetheless, resilience training is unlikely to prevent injuries on the job if participants can’t remember the content and didn’t change their coping behaviours. This demonstrates that in the context of the NSWPF, our resilience-training program has a problem with “training transfer”.

Training transfer refers to the process by which knowledge and skills learnt in training are applied, generalised on the job, and maintained over time (Baldwin & Ford, 1988). In study 2, we aimed to maximise workplace impact by addressing factors related to poor

67 This is especially the case for delayed-onset PTSD, where the symptoms present more than six months after exposure to a traumatic incident, possibly due to the impact of cumulative trauma, additional stressors or exaggerated initial numbing response. Delayed onset occurs in approximately 25% of all PTSD cases (Smid, Mooren, van der Mast, Gersons, & Kleber, 2009).
training transfer. Training transfer was especially important in study 2, as participants had a
delay between completing the resilience-training and starting work as police
officers. Given that training effects are known to dissipate over time when skills and
knowledge learnt in training are not used (Arthur, Bennett, Stanush, & McNelly, 1998), if
poor training transfer was not addressed, it was likely that participants would end up
forgetting the skills before they even started the job.

According to widely accepted models of training transfer, the primary influences on
transfer can be captured under three categories: trainee characteristics (including cognitive
ability, motivation to practise, self-efficacy and perceived usefulness of training),
environmental factors (influences beyond the formal training program including
organisational culture and climate, and training support from supervisors and peers) and
training design and delivery (such as having clear training goals, ensuring the content is
relevant, and including sufficient opportunities to practice new skills and obtain feedback)
The following pages review these influences and outline changes that were made to the
training program in study 2 with the intention of improving training transfer.

Trainee characteristics

Researchers have found that training transfer is shaped by a range of learner
characteristics including cognitive ability, self efficacy related to training tasks, training
motivation, perceived utility of the training, career planning, job identification and
commitment to the organisation (Burke & Hutchins, 2007) and negatively related with
neuroticism. Of these influences, in study 2 we chose to improve training motivation, based
on feedback from the participants in study 1 which highlighted diversity in motivations to
attend resilience training. Addressing diversity in training motivation was especially

---

68 This delay could not be changed due to logistical challenges
69 More recent transfer models also include trainer characteristics, which include the “trainer’s knowledge of the
subject matter, professional experience, and knowledge of teaching principles”.
important in study 2 given that participation was made compulsory for all police students. This means that there would inevitably be more participants attending the training with poor motivation to engage and learn.

Defined as the intensity and persistence of engagement in learning activities, before (pre-training motivation), during (motivation to learn) and after (motivation to transfer) training, training motivation is influenced by other trainee characteristics such as perceived utility, self efficacy and anxiety, which in turn are shaped by participants’ previous training experiences (Coultas et al., 2012). For example, if a participant’s experiences pre-dispose them to experience study stress, he or she might perceive the resilience training skills as useful and have higher levels of training motivation. Alternatively, if they are not stressed during training or if they already have helpful coping skills they may perceive the skills to be of low value and have poor motivation.

While poorly motivated participants would be harder to engage in resilience training, as a universal prevention program, resilience training must ensure all participants leave with skills, knowledge and attitudes that can keep them healthy in the future when they experience stressors on the job. In order to achieve this goal, we needed to find a way to engage both poorly and highly motivated participants. Although other forms of police training use assessment tasks to motivate new recruits to practise and develop new skills, given that coping is largely private, it would be difficult for an observer to assess meaningful engagement in resilience training. A potentially more effective approach to address the diverse training motivations of participants, are tailored, stage-based interventions.

The ‘Stages of Change’ model by Prochaska and DiClemente’s (1983), also known as the Transtheoretical Model of Change (TTM) has been widely used to understand and accelerate efforts to change personal behaviours, such as smoking, overeating and stress

---

70 This is not dissimilar to the challenge faced when high and low achieving students are in the same classroom
management (Evers et al., 2006). More recently, the TTM has been used in a leadership development context, to explore motivation to learn (Harris & Cole, 2007), and to understand barriers to the adoption of coaching behaviours (Grant, 2010). The TTM is based on findings that people move through a series of stages when modifying their behaviour, each characterised by different concerns, different motivations, and each stage having different interventions to motivate people to progress to the next stage.

Evers et al. (2006) identified the following stages of change for stress management:

- **Pre-contemplation:** “I have never thought about how to cope with stress”
- **Contemplation:** “I intend to implement new coping strategies in the next six months”
- **Preparation:** “I am getting ready to implement new stress management approaches”
- **Action:** “I have been using stress management techniques for less than six months”
- **Maintenance:** “I have been actively using stress management for at least six months”
- **Relapse:** “I have stopped using helpful coping strategies”

According to the TTM, participants with low motivation to learn and low levels of skills practice are likely to be in an earlier stage of change (e.g. pre-contemplation and contemplation). While progression from pre-contemplation to contemplation can be facilitated by reducing perceptions of the costs of change and maximising perceptions of the benefits, progression from contemplation to preparation can be encouraged by getting participants to take small behavioural steps, and progression from preparation to action can be facilitated by reinforcement and social support (Prochaska, Prochaska, & Levesque, 2001).

In study 2, participants with different levels of training motivation were engaged through a combination of general motivational strategies (delivered in the workshops) and personalised stage-based interventions (delivered on the coaching calls). The workshops began with building awareness of the costs of poor stress management and the benefits of building resilience, before introducing participants to the coping skills and encouraging skills
practice. The importance of resilience training and building better habits were reinforced by experienced police officers sharing their personal experiences of stress and coping.

Alongside the workshops, coaching calls with motivated participants focused on clarifying workshop content, increasing confidence in their ability to apply the skills, and tailoring and reinforcing skills practice. In contrast, coaching calls with poorly motivated participants acknowledged that while they may not be motivated to take action now, there were resources available to support them if and when they want to take action later. They also focused on building training motivation by exploring the pros and cons of skills practice, including addressing prior negative experiences of related activities (e.g. training, therapy, self help books), which are known to undermine training motivation (Coultas et al., 2012).

**Environmental factors**

Our exploration of environmental factors focuses on transfer climate, which refers to the set of environmental cues that inhibit or facilitate the use of learned skills. Better training outcomes are obtained when the transfer climate is positive, containing a mix of incentives and remediation that prompts trainees to use the skills correctly (Burke & Hutchins, 2007). Of course, a positive transfer climate is more likely if the objectives of the training align with the organisation’s objectives and culture (Coultas et al., 2012). Our experiences in study 1 demonstrated that the transfer climate for resilience training at the police academy was negative, with misalignment in several areas. First, running training to prevent future psychological injuries was not a core objective for the police academy leadership. Secondly, the methods of resilience training were not aligned with aspects of the police culture. In particular, accepting difficult emotions went against the socialisation of emotional control and detachment, and acknowledging vulnerability to chronic stress went against widespread stigma towards mental illness and the need to appear strong. In study 2, an

---

71 This was demonstrated by workshop attendance being made voluntary and scheduled at the last minute in competition to other priorities (e.g. exam preparation). It was also demonstrated by a lack of NSWPF input to the workshop content, and the timetable error that meant the final workshop could not be conducted.
attempt was made to address these areas of misalignment by implementing the following strategies:

- Training attendance was made compulsory for all students in the training cohort, to ensure all participants were introduced to the skills and so participants did not have to self-identify as needing training.
- Training exercises were designed so participants could practise the skills in private, without having to reveal any personal struggles to their peers.
- Participants were invited to use the coaching calls to bring up issues that they felt uncomfortable discussing in the workshops.
- Training was framed in terms of “staying strong” instead of dealing with weakness.
- The police leadership arranged for experienced officers to attend the workshops to share their personal experiences of stress on the job, to normalise the experience of psychological distress and to highlight the importance of resilience training.
- A briefing was held with lecturers at the academy to encourage them to normalise stress symptoms and help seeking in their classes, and to reinforce the resilience training coping skills.
- Workshops were scheduled at more appropriate times (not during exams).

Given that resilience training aims to prevent future injuries, it is also important to consider the transfer climate faced by participants when they leave the academy and begin working as police officers. Researchers have found that transfer in a post-training environment is more likely if the skills are reinforced by supervisors and peers (Burke & Hutchins, 2007; Coultas et al., 2012). While a formal evaluation of the post-training environment was not conducted, several participants in study 1 indicated on the follow-up calls that their supervisors and peers did not support or reinforce the resilience training skills on the job. This was not a surprise given that peers or supervisors had not attended the
program, and the prevailing stigma related to mental health issues. After all, supervisors and peers could not be expected to reinforce the development of coping skills in others if they themselves, felt uncomfortable talking about stress. Unfortunately, the post-training transfer climate could not be addressed in study 2 as we had no access to peers and supervisors.

Training design and delivery factors

Researchers have found that training transfer is enhanced when the design includes: 1) clear training goals; 2) content that appears relevant to participants; 3) the modelling of desired behaviours; and 4) opportunities for skills practise and feedback (Burke & Hutchins, 2007; Coultas et al., 2012). Of these design factors, to address concerns raised study 1, in study 2 we chose to focus on improving relevance and increasing skills practice. While increasing relevance enhances training motivation, increasing practice enhances learning by providing opportunities to assess and obtain feedback on skills performance, make behavioural adjustments and refine mental models (Coultas et al., 2012).

Two actions were taken in study 2 to improve relevance: 1) The content was updated and; 2) Time was allocated to discuss relevance in both the workshops and coaching calls. The content updates, which were made with the assistance of experienced police officers, included the addition of links to policing, the elimination of psychology jargon, and moving values and goals clarification to the first workshop to make the resilience training more immediately relevant to non-stressed participants. Meanwhile, the discussions about the relevance of the training involved exploring the immediate benefits of resilience-training skills for coping with study stress, in addition to listening to experienced officers share their beliefs about why resilience training is relevant to a career in policing. In the final workshop, participants were asked to re-consider the longer-term relevance of resilience training while drawing on their experiences on placement.

---

72 It was a concern that many participants reported that resilience training was not relevant to them, and even more concerning that very few practiced the skills beyond the workshops.
To improve the level of skills practice, several additional practice opportunities were added to the program in study 2. In the workshops, these included experiential exercises in which participants would be guided through practising a new skill, using scenarios to get participants thinking about how they would cope in different situations, and setting quizzes to reinforce knowledge. To maximise and reinforce learning and clarify any misunderstanding, we also changed the workshop schedule, so that the first 2 workshops would be held within a short time period (3 weeks).

Looking beyond the workshops, an especially beneficial practice opportunity is homework. By facilitating the application of new skills and knowledge in different contexts and over an extended period of time, homework acts as a generalisation and maintenance strategy. While in a treatment context, homework completion has been related to improved outcomes from psychotherapy (Kazantzis, Deane, & Ronan, 2000), in a prevention context like resilience-training, greater benefits have been found for higher levels of homework practice (Huppert & Johnson, 2010).

Of course, setting homework does not guarantee homework will be completed, and like medication adherence, the extent to which participants comply with homework tasks is often poor (Kazantzis et al., 2000), especially for participants in an early stage of change. This leads to poorer training outcomes, as demonstrated in study 1 by the low levels of retention for participants who did not complete the homework. When these participants were asked why they did not complete the homework, the two most common responses provided were competing priorities and the absence of stressors. Homework compliance was addressed in study 2 by implementing the following recommendations from the homework literature (Detweiler & Whisman, 1999):

- **Task changes:** Given that participants have competing priorities, the required homework was kept at a minimum, focused mainly on ensuring that they were
familiar with the exercises and that they knew where they could go to practise more if they became stressed. Homework exercises were updated to make them easier for participants to complete (e.g. creating clear handouts and sending email and SMS reminders with links to listen to guided audio exercises).

- **Trainee related changes:** Participants were encouraged to practise the skills as needed and at their own pace. To maximise homework motivation, time was taken on the coaching calls to discover participants’ needs and adapt homework to those needs.

- **Facilitator changes** included ensuring instructions from workshop facilitators were clear, and using the coaching calls to acknowledge and reinforce homework completion, and to provide constructive, personalised feedback, including exploring pros and cons to facilitate progress along stages (if homework tasks weren’t completed and motivation is low).

Given the time delay between the end of training and starting work in study 2, reinforcing the skills in the post-training environment was important for the success of the program. While an ideal way to do this would be to involve supervisors and peers, as mentioned earlier this was not possible. An alternative way is to use job performance aids, that is, tools that help participants to remember key knowledge and practise the skills (Coultas et al., 2012). Performance aids reduce the amount of time required during the training period as they allow for skills and knowledge to be developed later as needed. They are particularly attractive in a universal intervention such as resilience training for participants in early stages of change, who are not yet ready to apply the skills. They are also attractive in a time-constrained environment like the police-training program. In the current study the expected lack of reinforcement from peers and supervisors was addressed on the final coaching call by providing participants with a basic performance aid, in the form of a PowerPoint overview of the main concepts and skills. They were encouraged to look at this whenever they got stressed or wanted to practise the skills.
Assessing the workplace impact of Resilience training

While the ultimate goal of resilience training is to prevent psychological injuries on the job, the extent to which this goal is achieved can only be assessed over an extended period of time. Unfortunately, as with study 1, because the participants were only assessed over a few months at the academy, it was not possible in study 2 to make conclusions about the full impact of resilience training. This was especially the case for a sample of healthy participants, given previous studies in which significant mental health and coping improvements were only found for participants who were initially distressed (Flaxman & Bond, 2010b). However, with effective training transfer, we expected resilience training to lead to significant benefits over the duration of a participant’s careers and beyond, if and when they become distressed. In particular, we expected that participants exposed to training, would obtain the following benefits relative to the control group:

- Lower levels of stigma associated with stress and mental illness
- Improvements in coping on the job
- Lower rates of psychological injuries and associated costs

In study 2, stage of change was used as a leading indicator of the future impact of resilience training on healthy participants, based on the assumption that healthy participants are more likely to obtain future benefits if they are in a stage of action for effective stress management. During the training period, we expected that the motivational strategies included in the program would motivate participants to move along the stages of change. Future benefits were expected to be more likely for training participants who progress along the stages of change and practice the skills during training.

---

73 This finding is not surprising, given that resilience training cannot possibly lead to symptom reduction if participants have no symptoms at the outset. Likewise, they are unlikely to report using different coping strategies if they are not experiencing stress.
Training transfer summary

In summary, study 1 revealed that in the NSWPF context, our resilience-training program had several problems with training transfer, including high levels of attrition, and poor engagement and knowledge retention, that needed to be addressed if resilience training is to prevent future psychological injuries. Enhancing training transfer is especially important in the current study as participants had a large gap between attending training and starting working as police officers. As shown in Figure 3, training transfer has been found to be influenced by factors related to the trainee (including motivation, self-efficacy and perceived usefulness of the skills); factors related to the environment (both during training and post-training); and factors related to the training design (including goal clarity, content relevance and opportunities to practice).

Drawing on this understanding, several changes were made to the training program in study 2, with the goal of maximising training transfer and preventing psychological injuries on the job. These changes include making training attendance compulsory for all members of the training cohort, minimising the gap between workshops 1 and 2, updating and rearranging the content to make it more relevant and engaging for police recruits, adding homework exercises to encourage practice outside of workshops and adding coaching calls to tailor the program to the stage of change.

Study 2 expectations

As a result of these changes, participants were expected to report improvements at all four levels of Kirkpatrick’s training evaluation framework, particularly with retention, behaviour change, and workplace impact, and especially for participants who report higher levels of practice. Drawing on the Kirkpatrick framework the following expectations relate to the design and implementation of study 2.74

---

74 And Study 3, which focuses more on the use of performance aids to facilitate training transfer
1. *Kirkpatrick Level 1 - Reactions*

- Several actions were taken to address observations from study 1 that competing priorities and stigma were undermining reactions to the training. These include making training participation compulsory, scheduling workshops at more appropriate times, making it more relevant to policing, getting experienced officers to share their experiences of stress and tailoring training based on stage of change. After making these changes, we expected that participants in study 2 would report that the training was helpful, including both the workshops and the learning supports (coaching calls, audios, reminders).

2. *Kirkpatrick Level 2 - Knowledge retention*

- With the inclusion of additional practice activities and personalised coaching, at the end of study 2, it was expected that participants could explain key training concepts including the stress response, resilience, and helpful and unhelpful ways of coping. They were also expected to know where to go for support.

3. *Kirkpatrick Level 3 - Behaviour changes*

- Stages of change will be explicitly assessed in study 2. It was expected that participants would begin training with different motivations for training, as reflected by different stages of change for stress management.

- With the inclusion of personalised stage-based coaching, training participants were expected to become more motivated to practice stress management, as reflected by shifts from the pre-contemplation and contemplation stages of change to the preparation and action stages.

- Skills practice will be influenced by stage of change. Participants in the action and maintenance stages of change at the end of training were expected to practise the skills more than participants in other stages of change.
The inclusion of specific homework activities combined with personalised stage-based motivational coaching in Study 2 means that participants were expected to practice the skills more than they did in study 1.

4. *Kirkpatrick Level 4 - Impact on mental health and coping*

- Training group participants were expected to report significant improvements in mental health and coping over the training period compared to control group participants, but only if they were distressed at the start of training.
- Practice will facilitate the generalisation and maintenance of the skills, with training participants who practise the skills experiencing improvements in their mental health and coping relative to participants who don’t practise the skills.

Based on these expectations, the following hypotheses were made for study 2:

1. Consistent with the findings of study 1, better mental health (as indicated by lower levels of depression, stress, anxiety, PSS, PTSD and GHQ and higher levels of resilience and positive affect) will be associated with the targeted mechanisms of change (lower levels of unhelpful coping and experiential avoidance, and higher levels of mindfulness and progress towards values).
2. Baseline distress will moderate the impact of training on mental health and coping.
3. Participation in training will lead to progress along the stages of change.
4. Stages of change will be related to practice levels. Practice will lead to improvements in mental health outcomes and coping.

---

75 Consistent with previous findings, improvements in mental health and coping were not expected for participants who were not distressed at the start of training.
76 In study 2 positive affect was included as a mental health outcome as opposed to a predictor.
RESILIENCE TRAINING IN THE WORKPLACE

Figure 3. Overview of Training Effectiveness
Method

Design

Participants were new students at the NSWPF academy in Goulburn. The research design was $2 \times 3$ (Group: Training, Control) X 3 (Time: 1 pre-workshops, 2 during the workshops, and 3 follow-up) mixed design. The Control group comprised all students commencing their police studies at the academy in May 2012 and a Training group, comprising students commencing in January 2013. Both groups attended debriefings where they were provided an information form (see Appendix 3) before being asked to complete paper surveys$^{77}$ (see Appendix 5) on three occasions: pre-intervention (time 1), immediately before workshop 4 (time 2), and medium term follow up (time 3). The surveys were administered at an equivalent stage in the overall police-training program for both the control and training groups (e.g. time 1 was administered in week 1 of session 1). As per the recommendations from the pilot study, participation in the workshops (for the training group) and completion of the surveys (for both groups) was made compulsory for all students in the cohort, with students having the option to indicate they did not want their data included in the research. To encourage honest responding, survey responses were anonymous with participants’ data being linked across time using a unique code. Consistent with the design of the pilot training program, participants in the training group attended four 110-minute workshops. Specifically, workshops one, two and three occurred in Weeks 2, 4 and 12 of session one and workshop four occurred in Week 1 of session two (see Figure 4). To reinforce and personalise the learning, two 30 minute coaching calls were conducted, one after workshop two, and the other after workshop four.

$^{77}$ Paper surveys were used instead of online surveys as it was the most efficient way of ensuring all participants in both the control and training groups completed the questionnaires at the same time.
Participants

278 control group participants (average age = 26) and 48 training group participants (average age = 25) completed the first survey (see Figure 4). The training group was much smaller than the control group due to a significant reduction in student numbers in the police academy student intake for January 2013.

Figure 4. Study Timeline and participant completion

While the number of completed surveys dropped by less than 5 per cent between time 1 and time 3, only 98 control group participants and 27 training group participants could be matched across the three time-points. The low matching rate was due to participants either answering the unique code questions differently (meaning their data couldn’t be matched across time), or because they chose to exclude their data at later time-points.
Participant demographics for the overall sample at time 1 are shown in Table 7. Chi-squared analyses revealed no significant between group differences on the demographics.

Table 7  
*Participant demographics at Time 1*

<table>
<thead>
<tr>
<th></th>
<th>Control (N=278)</th>
<th>Training (N=48)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>78</td>
<td>28%</td>
</tr>
<tr>
<td>Male</td>
<td>200</td>
<td>72%</td>
</tr>
<tr>
<td>Relationship Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defacto</td>
<td>60</td>
<td>22%</td>
</tr>
<tr>
<td>Divorced/Separated</td>
<td>4</td>
<td>1%</td>
</tr>
<tr>
<td>Married</td>
<td>43</td>
<td>15%</td>
</tr>
<tr>
<td>Single</td>
<td>172</td>
<td>62%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postgraduate</td>
<td>5</td>
<td>2%</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>35</td>
<td>13%</td>
</tr>
<tr>
<td>Diploma or Associate</td>
<td>27</td>
<td>10%</td>
</tr>
<tr>
<td>Year 12</td>
<td>108</td>
<td>39%</td>
</tr>
<tr>
<td>Trade</td>
<td>87</td>
<td>31%</td>
</tr>
<tr>
<td>Before Year 12</td>
<td>13</td>
<td>5%</td>
</tr>
<tr>
<td>Prior exposure to stress management training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Face to Face Counselling</td>
<td>26</td>
<td>9%</td>
</tr>
<tr>
<td>Self help books</td>
<td>15</td>
<td>5%</td>
</tr>
<tr>
<td>Workshops</td>
<td>11</td>
<td>4%</td>
</tr>
<tr>
<td>Children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>242</td>
<td>87%</td>
</tr>
<tr>
<td>One</td>
<td>15</td>
<td>5%</td>
</tr>
<tr>
<td>Two</td>
<td>13</td>
<td>5%</td>
</tr>
<tr>
<td>Three or more</td>
<td>6</td>
<td>2%</td>
</tr>
</tbody>
</table>

*Measures*

The measures were same as those used for study 1, with the addition of a perceived stress measure and a new measure of valued living. The new measures are described below.
Perceived Stress scale (PSS) (Cohen & Williamson, 1988): This ten-item scale measures the degree to which individuals have been appraising situations in the last month as stressful. Examples of items include “How often have you felt nervous and stressed” and “How often have you felt difficulties were piling up so high that you could not overcome them”. Participants respond to each item using a Likert scale that ranges from “Never” (0) to “Very Often” (4). Scores can range from 0 to 40, with the final score calculated by summing the items. Alpha coefficients for the PSS were .84, .83 and .86 for Time 1, time 2 and Time 3 respectively. Not included in study 1, this measure was added to capture the level of exposure to stressors, as opposed to the physiological tension response captured by the DASS Stress scale.

Values progress (Smout, Davies, Burns, & Christie, 2014): This 4-item measure assesses an individual’s ability to live consistently with their values. The scale contains statements such as “I made progress in the areas of my life I care most about” and “I was proud about how I lived my life”. Participants respond to the items on a Likert scale that ranges from "Not at all true" (1) to "Completely True" (6), with the minimum score being 4 and the maximum being 24. High scores indicate success at living in a way consistent with values. Alpha coefficients for the Values progress scale were .83, .82 and .84 for Time 1, time 2 and Time 3, respectively. This measure replaces the Valued Living measure used in study 1.

Intervention

The training program included psycho-education about stress and resilience, together with training on the use of a range of coping skills, and on how to select helpful skills for different situations. While the training content was similar to study 1, the clarity and relevance were improved to aid retention and make it easier for participants to apply the skills in their lives. For example, participants were introduced to a resilience model that incorporated a coping selection guide. At the highest level of this guide, coping skills were
categorised as strategies for coping with either symptoms (symptom reduction) or stressors. Strategies for coping with stressors were further broken down into strategies for changing the stressors (action strategies), strategies for accepting stressors (acceptance strategies) and strategies for conflict resolution\(^{78}\). Given the role of stress and negative emotion on narrowing thinking, participants were encouraged to engage strategies for dealing with stress symptoms before considering how to deal with stressors. With stressors they were taught to appraise the level of control they have first, before engaging action strategies for high-control stressors, and acceptance strategies for low-control stressors. An outline of the training content is provided in Table 8, with workshop slides and handouts contained in Appendix 3.

Overall, it took participants 18 weeks to complete the full program. Workshops one to three had two facilitators, while the final workshop had only one facilitator. The maximum number of participants in any single workshop was 16 and the minimum was ten. Homework included worksheets to monitor stress and coping, and between workshop 1 and 2, participants were sent text messages and emails with links to audio recordings of guided muscle relaxation, mindfulness and abdominal breathing exercises. While attendance in training was compulsory and considered part of their course, practising the skills (both in class and outside of class) was voluntary and not monitored.

**Table 8**  
*Program Outline – 2012/2013 Study*

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workshop 1</td>
<td>• Stress education (distinction between triggers and symptoms, the fight flight response, chronic stress problems)</td>
</tr>
<tr>
<td></td>
<td>• Resilience, coping and relationship with values</td>
</tr>
<tr>
<td></td>
<td>• 5 strategies for calming down (mindfulness, breathing, muscle relaxation, physical exercise, emotional support)</td>
</tr>
</tbody>
</table>

\(^{78}\) The categories of action strategies and conflict resolution strategies resemble the category of problem-focused coping, with symptom and acceptance strategies resembling emotion-focused coping.
<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
</table>
| 2. Homework | • Log stress level/triggers/symptoms and coping responses  
 **(each night between workshop 1 and 2)**  
 • Listen to 10 min audio recordings (mindfulness, abdominal breathing, muscle relaxation) |
| 3. Workshop 2 | • Dealing with stressors  
 • The alternative to control  
 • Coping flexibility – Acceptance and Action  
 • Resilience model and coping selection guide |
| 4. Coaching call 1 | • Clarify, personalise & reinforce skills introduced in workshops |
| 5. Homework | • Review stressors and stress symptoms, practise calming  
 **(Once a week between workshop 2 and 4)**  
 strategies to promote recovery, take action on controllable stressors, accept low control stressors. |
| 6. Workshop 3 | • Dealing with interpersonal conflict, skills for helping others  
 • Preparing for placement – applying the resilience model to a range of potentially stressful scenarios (fatal accident, arrest for sexual assault, busy shift, death message) |
| 7. Workshop 4 | • Commenced with completing survey 2  
 • Placement debriefing (reflect on experiences, identify stressful experiences and explore strategies used to handle them)  
 • Program review (the three steps to resilient coping – notice when you get stressed, strategies to calm down and gather your thoughts, strategies to deal with the stressor) |
| 8. Coaching call 2 | • Personalise and reinforce overall training, with a focus on skills clarification and practise motivation. Program feedback. |
Program Feedback

At the end of each workshop, participants rated how helpful the workshop had been in teaching them new ways to cope with stress and frustration on a Likert scale ranging from “Not very helpful” (1) to “Very helpful” (5). They were also asked to comment on what they found most beneficial about the workshop and to make suggestions to improve the workshop. In the final coaching call, participants were asked for comments on the overall program. At the end of the third workshop, participants were asked to rate the helpfulness of, and provide comments on, the learning supports (guided audio recordings, SMS reminders, email reminders and the coaching phone call). In addition, they were asked whether a smartphone application to support officers to develop new coping habits would be helpful.

Assessment of practice frequency and stage of change

Practice frequency was assessed at time 2 and time 3, by asking participants to indicate how often they had been practising the skills outside of class, on a five-point scale from "Never" to "Very Often". Participants identified their stage of change for stress management at time 3 using an approach adapted from previous studies (Evers et al., 2006; Velicer, Prochaska, Fava, Norman, & Redding, 1998). This approach involved providing participants with a brief definition of stress management before asking: “Thinking about situations and experiences that you currently find stressful, do you now practise stress management effectively in your daily life?”. They were then prompted to choose from one of six response categories:

- “No. I have not been stressed.” (not stressed)
- “No. And I have no intention to begin in the next six months” (pre-contemplation)
- “No. But I intend to begin in the next six months” (contemplation)

---

79 Note: in the first questionnaire participants were also asked whether they would be willing to use a smartphone App for stress management.

80 The following question refers to stress management practices including regular relaxation, mindfulness and physical activity, talking with others, solving problems and planning where you have control, and accepting the things that you cannot control.
“No. But I intend to begin in the next month” (preparation)

“No. But I intend to begin in the next month” (preparation)

“Yes. And I have been practising but for less than six months” (action)

“Yes. And I have been practising but for less than six months” (action)

“Yes. And I have been practising for at least six months” (maintenance)

“Yes. And I have been practising for at least six months” (maintenance)

Also at time 3, stage of change for stress management was assessed retrospectively for time 1, by asking participants: “Thinking back to your experience before you began your police training and to situations and experiences that you found stressful. Were you effectively practising stress management in your daily life (before the resilience training)?”

Results

While participant demographics were described in the method section, Table 9 displays the means and standard deviations of the main variables at time 1 for the matched sample. While the mean scores at time 1 on GHQ and experiential avoidance were slightly higher than those reported in study 1, scores on the remaining variables were comparable.

On the Depression (DASS-D) subscale, average scores for the control group declined initially before increasing (overall range from 0 to 20). The average scores for the training group followed the same pattern (overall range from 0 to 14). The average depression scores for both groups remained in the normal (non-distressed) range for depression at all time-points (Lovibond & Lovibond, 1995).

On the Anxiety (DASS-A) subscale, average scores for the control group also declined initially before increasing (overall range from 0 to 16). The average scores for the training group followed the same pattern (overall range from 0 to 17). The average anxiety scores for both groups remained in the normal (non-distressed) range for anxiety at all time-points, with the exception of the final time-point for the training group which was in the mild distress range (Lovibond & Lovibond, 1995).
On the Stress (DASS-S) subscale, average scores for the control group also declined initially before increasing (overall range from 0 to 20). The average scores for the training group followed the same pattern (overall range from 0 to 19). The average stress scores for both groups remained in the normal (non-distressed) range for stress at all time-points, with the exception of the final time-point for the training group which was in the mild distress range (Lovibond & Lovibond, 1995).

On the *Perceived Stress Scale* (PSS), average scores for the control group also declined initially before increasing (overall range from 1 to 36). The average scores for the training group increased consistently over time (overall range from 3 to 29). The average scores for both groups at all time-points were within 1 SD of the norm score for US respondents in 2009 aged 25 to 34 (M = 17.5, SD = 7.3) (Cohen & Janicki-Deverts, 2012).

On the PTSD Checklist (PCL-C) scale, average scores for the control group declined initially before increasing (overall range from 17 to 72). The average scores for the training group followed the same pattern (overall range from 17 to 60). The average PTSD scores for both groups were not significantly higher than the suggested cutoff scores for PTSD screening in civilian primary care (25) (Weathers et al., 1991).

On the *General Health Questionnaire* (GHQ-12) scale, average scores for the control group also declined initially before increasing (overall range from 0 to 35). The average scores for the training group followed the same pattern (overall range from 0 to 31). The average GHQ scores at time 1 were both lower than the average recorded in both the Bond and Bunce (2000) Study (M = 12.17) and the study by Bilich (2009) (M = 11.28), indicating that the police recruits started with lower levels of distress compared to these previous studies.

On the AAQ-II scale, which measures experiential avoidance, average scores for the control group declined initially before increasing (overall range from 7 to 44). The average
scores for the training group followed the same pattern (overall range from 7 to 37). The average score was lower than the average recorded in previous non-clinical populations (M = 18.53, SD 7.52) (Bond et al., 2011).

On the Mindfulness scale, at time 1, average scores for the control group decreased slightly over time (overall range from 1.4 to 6.0). The average scores for the training group increased then declined (overall range from 1.5 to 6.0).

On the Values progress scale, average scores for the control group declined consistently over time (overall range from 4 to 24). The average scores for the training group declined before stabilising (overall range from 11 to 24). On the Resilience scale, average scores for the control group increased initially before declining (overall range from 93 to 182). The average scores for the training group decreased slightly initially before increasing (overall range from 83 to 182). On the Positive affect scale, average scores for the control group declined consistently over time (overall range from 0 to 20). The average scores for the training group followed the same pattern (overall range from 20 to 50).

On the Maladaptive coping scale, average scores for the control group also declined initially before increasing (overall range from 12 to 35). The average scores for the training group followed the same pattern (overall range from 12 to 30). The mean scores for the Brief Cope subscales are shown in Figure 5.
Consistent with Study 1, correlational analyses were conducted to confirm that the relationships between the mental health outcome measures and the targeted mechanism-type variables of change were consistent with the theoretical framework. The relationships between variables at time 1 in the matched sample (see Table 9) were as expected and consistent with the findings of study 1. Higher scores on measures of psychological distress (Depression, Anxiety, Stress, PSS, GHQ-12 and PTSD) were strongly positively correlated to behaviours discouraged in the intervention (maladaptive coping and experiential avoidance; AAQ-II) and largely negatively correlated to higher scores in the behaviours promoted by the intervention (mindfulness and valued living).

Note, in study 1, the correlations and regressions were conducted on the overall sample.
Table 9  
Correlations and descriptive statistics for the matched sample at time 1  (N=125)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Depression</td>
<td>—</td>
<td>.58**</td>
<td>.55**</td>
<td>.57**</td>
<td>.48**</td>
<td>.57**</td>
<td>-.45**</td>
<td>.47**</td>
<td>.60**</td>
<td>-.30**</td>
<td>-.39**</td>
</tr>
<tr>
<td>2</td>
<td>Anxiety</td>
<td>—</td>
<td>.62**</td>
<td>.53**</td>
<td>.58**</td>
<td>.47**</td>
<td>.47**</td>
<td>-.40**</td>
<td>.45**</td>
<td>.63**</td>
<td>-.45**</td>
<td>-.28**</td>
</tr>
<tr>
<td>3</td>
<td>Stress</td>
<td>—</td>
<td>.49**</td>
<td>.55**</td>
<td>.54**</td>
<td>-.36**</td>
<td>.42**</td>
<td>.58**</td>
<td>-.45**</td>
<td>-.25**</td>
<td>-.32**</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Perceived Stress</td>
<td>—</td>
<td>.49**</td>
<td>.48**</td>
<td>-.50**</td>
<td>.48**</td>
<td>.57**</td>
<td>-.38**</td>
<td>-.39**</td>
<td>-.50**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>PTSD</td>
<td>—</td>
<td>.42**</td>
<td>-.31**</td>
<td>.59**</td>
<td>.70**</td>
<td>-.53**</td>
<td>-.26**</td>
<td>-.30**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>GHQ</td>
<td>—</td>
<td>-.39**</td>
<td>.46**</td>
<td>.50**</td>
<td>-.40**</td>
<td>-.45**</td>
<td>-.53**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Resilience</td>
<td>—</td>
<td>-.31**</td>
<td>-.40**</td>
<td>.32**</td>
<td>.64**</td>
<td>.59**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Unhelpful Coping</td>
<td>—</td>
<td>.70**</td>
<td>-.50**</td>
<td>-.23**</td>
<td>-.45**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Experiential Avoidance</td>
<td>—</td>
<td>-.61**</td>
<td>-.40**</td>
<td>-.52**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Mindfulness</td>
<td>—</td>
<td>.16</td>
<td>.33**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Values Progress</td>
<td>—</td>
<td>.54**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Positive Affect</td>
<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>

\[
\begin{align*}
M & = 1.64 & 2.5 & 3.64 & 12.65 & 22.93 & 8.71 & 148.47 & 16.48 & 12.46 & 4.54 & 18.8 & 42.88 \\
SD & = 2.02 & 3.06 & 3.07 & 4.55 & 7.12 & 4.33 & 17.05 & 3.74 & 6.13 & 0.83 & 3.86 & 5.86
\end{align*}
\]

**p < .01, *p < .05; two-tailed
Regressions (Hypothesis 1)

Regression analyses were conducted in addition to the correlations to assess the extent to which each mechanism of change was uniquely predictive of different outcome measures, and the amount of variation explained (see table 10). Using the backwards-stepwise method, this involved adding all potential predictors before removing redundant predictors.

Table 10  Multiple regression analyses predicting mental health measures

<table>
<thead>
<tr>
<th>Outcome variable</th>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>Adjusted $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Experiential Avoidance</td>
<td>.18**</td>
<td>.03</td>
<td>.55</td>
<td>.39**</td>
</tr>
<tr>
<td></td>
<td>Valued Living Progress</td>
<td>-.09*</td>
<td>.04</td>
<td>-.17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td>.39**</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Experiential Avoidance</td>
<td>.31**</td>
<td>.04</td>
<td>.62</td>
<td>.38**</td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td>Experiential Avoidance</td>
<td>.30**</td>
<td>.04</td>
<td>.58</td>
<td>.33**</td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSS</td>
<td>Experiential Avoidance</td>
<td>.36**</td>
<td>.06</td>
<td>.49</td>
<td>.34**</td>
</tr>
<tr>
<td></td>
<td>Valued Living Progress</td>
<td>-.22</td>
<td>.10</td>
<td>-.18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td>.34**</td>
</tr>
<tr>
<td>PTSD-CL</td>
<td>Unhelpful Coping</td>
<td>.29</td>
<td>.16</td>
<td>.16</td>
<td>.53**</td>
</tr>
<tr>
<td></td>
<td>Experiential Avoidance</td>
<td>.54**</td>
<td>.11</td>
<td>.49</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>-.142*</td>
<td>.65</td>
<td>-.18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td>.53**</td>
</tr>
<tr>
<td>GHQ-12</td>
<td>Unhelpful Coping</td>
<td>.32*</td>
<td>.10</td>
<td>.28</td>
<td>.36**</td>
</tr>
<tr>
<td></td>
<td>Valued Living Progress</td>
<td>-.40**</td>
<td>.09</td>
<td>-.35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>-.107*</td>
<td>.46</td>
<td>-.20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td>.36**</td>
</tr>
<tr>
<td>Resilience</td>
<td>Valued Living Progress</td>
<td>2.63**</td>
<td>.31</td>
<td>.60</td>
<td>.44**</td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>4.80*</td>
<td>1.44</td>
<td>.24</td>
<td></td>
</tr>
<tr>
<td>Positive Affect</td>
<td>Experiential Avoidance</td>
<td>-.26*</td>
<td>.10</td>
<td>-.28</td>
<td>.42**</td>
</tr>
<tr>
<td></td>
<td>Unhelpful Coping</td>
<td>-.27</td>
<td>.15</td>
<td>-.17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Valued Living Progress</td>
<td>.58**</td>
<td>.12</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td>.42**</td>
</tr>
</tbody>
</table>

Note.  B values are unstandardized coefficients.  * p < .05.  ** p < .001

---

82 Regression analyses were conducted in addition to the correlations to assess the extent to which each mechanism was uniquely predictive of different outcome measures and the amount of variation explained.

83 Backwards-stepwise regression was used in the absence of any theory offering suggestions regarding the relative contribution of the different process variables to the outcome measures in a police setting.
In the first regression model, 39% of variation in depression scores, $F_{2,115} = 38.25$, $p<.001$, could be explained by two significant predictor variables: increased experiential avoidance ($\beta = .55$, $p < .001$) and decreased valued living progress affect ($\beta = -.17$, $p = .034$).

In the second regression model, 38% of variation in anxiety scores, $F_{1,117} = 71.74$, $p<.001$, could be explained by one predictor variable: increased experiential avoidance ($\beta = .62$, $p < .001$).

In the third regression model, 33% of variation in stress scores, $F_{1,115} = 57.30$, $p<.000$, could be explained by one predictor variable: increased experiential avoidance ($\beta = .58$, $p < .001$).

In the fourth regression model, 34% of variation in perceived stress scores, $F_{2,117} = 30.87$, $p<.001$, could be explained by two significant predictor variables: increased experiential avoidance ($\beta = .49$, $p < .001$) and decreased valued living progress ($\beta = -.18$, $p = .027$).

In the fifth regression model, 53% of variation in PTSD scores, $F_{3,116} = 44.24$, $p<.001$, could be explained by three predictor variables: increased experiential avoidance ($\beta = .49$, $p < .001$), increased unhelpful coping ($\beta = .16$, $p = .072$) and decreased mindfulness ($\beta = -.18$, $p = .032$).

In the sixth regression model, 36% of variation in GHQ scores, $F_{3,116} =22.39$, $p<.001$, could be explained by three significant predictor variables: increased unhelpful coping ($\beta = .28$, $p = .002$), decreased mindfulness ($\beta = -.20$, $p = .021$) and decreased valued living progress ($\beta = -.35$, $p < .001$).
In the seventh regression model, 44% of variation in resilience scores, $F_{2,114} = 45.52$, $p < .001$, could be explained by two predictor variables: increased mindfulness ($\beta = .24$, $p = .001$) and increased values progress ($\beta = .60$, $p < .001$).

In the eighth regression model, 42% of variation in resilience scores, $F_{3,115} = 28.58$, $p < .001$, could be explained by three predictor variables: decreased experiential avoidance ($\beta = -.28$, $p = .010$), decreased unhelpful coping ($\beta = -.17$, $p = .089$) and increased valued living progress ($\beta = .38$, $p < .001$).

*Impact of training*

*Participant attrition*

Across the three time-points, a total of 201 participants (62% of the total) dropped out of the study, either because they excluded their data from the research or answered the anonymous code questions differently between the time-points. Comparisons between participants who could be matched versus those that could not be matched revealed significant differences at time 1 in the average scores of both the perceived stress scale (Matched = 12.50; Not matched = 13.54) and the distraction coping subscale (Matched = 3.87; Not Matched = 3.43). Participants that could be matched were significantly less stressed, $t(350) = -2.10$, $p < .05$, and used self distraction significantly more often than those that could not, $t(354) = 2.79$, $p < .01$. No other significant differences were found.

*Baseline differences between the groups*

In comparison to the control group, at Time 1, training participants were found to report significantly higher levels of planning (Training = 4.93; Control = 4.02), $t(121) = 2.37$, $p < .05$, and greater positive affect (Training = 44.96; Control = 42.29), $t(121) = 2.69$, $p < .01$. No other significant baseline differences were found between the groups.
Intervention Analysis

A 2 (Group: Training, Control) X 3 (Time: 1 pre-workshops, 2 during the workshops, and 3 follow-up) repeated measures ANOVA was conducted for each of the mental health and process measures. Where Mauchly’s test indicated that the assumption of sphericity had been violated (most variables), Greenhouse-Geisser corrections were used. Descriptive statistics for the matched sample at all three time-points are shown in Table 11.

While no significant time by group interactions were found on any of the main variables, a significant group effect was found only for positive affect, $F(1,114) = 3.98, p < .01, \eta^2 = .03$, with the training group reporting significantly more positive affect than the control group. Significant main effects for time were found on all variables apart from mindfulness and resilience. While both values progress, $F(2,234) = 4.559, p < .05, \eta^2 = .08$, and positive affect ($F(1.90, 216.49) = 16.38, p < .01, \eta^2 = .13$) reduced consistently over the time, the following variables were found to decrease between time 1 and time 2, before increasing at time 3:

- Depression, $F(1.43,172.65) = 27.24, p < .01, \eta^2 = .18$,
- Anxiety, $F(1.80, 216.42) = 21.85, p < .01, \eta^2 = .15$,
- Stress, $F(1.74, 201.72) = 34.59, p < .01, \eta^2 = .26$,
- PSS, $F(1.82, 208.67) = 22.03, p < .01, \eta^2 = .16$,
- PTSD, $F(1.65, 192.87) = 16.79, p < .01, \eta^2 = .13$,
- GHQ, $F(1.77, 209.30) = 39.37, p < .01, \eta^2 = .25$,
- Unhelpful coping, $F(1.74, 206.64) = 16.35, p < .01, \eta^2 = .12$,
- Experiential avoidance, $F(1.91, 228.67) = 5.348, p < .01, \eta^2 = .04$.

To explore the effects in more detail, tests were also conducted on the coping subscales.
Table 11 Descriptive Statistics for matched sample at time 1, 2 and 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control (N = 98)</th>
<th></th>
<th></th>
<th>Training (N = 27)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Time 1</td>
<td>Time 2</td>
<td>Time 3</td>
<td>Time 1</td>
<td>Time 2</td>
<td>Time 3</td>
</tr>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Depression</td>
<td>1.69</td>
<td>2.05</td>
<td>1.03</td>
<td>1.99</td>
<td>3.18</td>
<td>1.48</td>
</tr>
<tr>
<td>Anxiety</td>
<td>2.48</td>
<td>3.19</td>
<td>1.09</td>
<td>1.64</td>
<td>2.82</td>
<td>2.56</td>
</tr>
<tr>
<td>Stress</td>
<td>3.59</td>
<td>3.18</td>
<td>2.11</td>
<td>2.41</td>
<td>5.59</td>
<td>3.81</td>
</tr>
<tr>
<td>PSS</td>
<td>12.67</td>
<td>4.79</td>
<td>11.55</td>
<td>4.95</td>
<td>15.06</td>
<td>12.59</td>
</tr>
<tr>
<td>PTSD</td>
<td>22.66</td>
<td>7.02</td>
<td>20.84</td>
<td>5.48</td>
<td>26.34</td>
<td>23.89</td>
</tr>
<tr>
<td>GHQ</td>
<td>9.00</td>
<td>4.36</td>
<td>7.29</td>
<td>3.76</td>
<td>12.20</td>
<td>7.65</td>
</tr>
<tr>
<td>Unhelpful Coping</td>
<td>16.28</td>
<td>3.66</td>
<td>15.13</td>
<td>2.97</td>
<td>17.44</td>
<td>17.23</td>
</tr>
<tr>
<td>Experiential Avoidance</td>
<td>12.23</td>
<td>6.33</td>
<td>10.65</td>
<td>5.73</td>
<td>12.21</td>
<td>13.30</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>4.61</td>
<td>0.81</td>
<td>4.59</td>
<td>0.81</td>
<td>4.47</td>
<td>4.30</td>
</tr>
<tr>
<td>Values Progress</td>
<td>18.67</td>
<td>4.11</td>
<td>17.65</td>
<td>3.99</td>
<td>17.16</td>
<td>19.27</td>
</tr>
<tr>
<td>Resilience</td>
<td>147.75</td>
<td>17.86</td>
<td>149.54</td>
<td>16.83</td>
<td>148.93</td>
<td>151.16</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>42.29</td>
<td>6.18</td>
<td>40.41</td>
<td>5.94</td>
<td>37.87</td>
<td>44.96</td>
</tr>
</tbody>
</table>


Coping Subscale Tests

While no significant time by group interactions were found on any of the coping subscales, main effects for group was found for Planning, $F(1, 117) = 34.90, p < .05, \eta^2 = .05$, Active Coping, $F(1, 117) = 26.2, p < .05, \eta^2 = .04$, Instrumental Support, $F(1, 117) = 20.76, p < .05, \eta^2 = .03$, and Venting, $F(1, 117) = 12.08, p < .05, \eta^2 = .04$, with the training group reported higher levels of planning, active coping, instrumental support and venting than the control group. In addition, significant main effects for time were found on all subscales apart from Active, Acceptance and Substance Use coping, with scores on the following subscales decreasing between time 1 and Time 2, before increasing at Time 3:

- Denial, $F(1.58,184.73) = 7.19, p < .01, \eta^2 = .06$
- Disengagement, $F(1.64,191.57) = 7.16, p < .01, \eta^2 = .06$
- Emotional Support, $F(1.93,226.00) = 4.65, p < .05, \eta^2 = .04$
- Humor, $F(1.97,230.95) = 7.83, p < .01, \eta^2 = .06$
- Instrumental Support, $F(1.93,226.22) = 3.87, p < .05, \eta^2 = .03$
- Planning, $F(1.86,217.33) = 6.71, p < .01, \eta^2 = .05$
- Reframing, $F(1.94,226.48) = 3.63, p < .05, \eta^2 = .03$
- Religion, $F(1.67,195.15) = 10.2, p < .01, \eta^2 = .08$
- Self Blame, $F(1.90,222.08) = 8.63, p < .01, \eta^2 = .07$
- Self Distraction, $F(1.93,225.66) = 5.40, p < .01, \eta^2 = .04$
- Venting, $F(1.91,223.5) = 4.93, p < .01, \eta^2 = .04$

Baseline perceived stress as moderator of effect of training (Hypothesis 2)

Moderated regression models were computed to establish whether baseline perceived stress (i.e., time 1 PSS) moderated the impact of training between both time 1 and 2 (the supported period)\(^{85}\), and between time 2 and 3 (the unsupported period). As shown in Table

---

\(^{85}\) Participants attended workshops and coaching calls during the supported period
11b, baseline perceived stress was not found to moderate the effect of training on stress levels during either the supported or unsupported periods.

**Table 11b. Baseline distress as a moderator of the impact of training**

<table>
<thead>
<tr>
<th>Outcome variable</th>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>Adjusted $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS Time 2</td>
<td>CPSS Time 1$^{86}$</td>
<td>.53**</td>
<td>.09</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td>(Supported</td>
<td>Group$^{87}$</td>
<td>-2.02*</td>
<td>.89</td>
<td>-.18</td>
<td>.27**</td>
</tr>
<tr>
<td>period)</td>
<td>Group X CPSS T1</td>
<td>-.03</td>
<td>.24</td>
<td>-.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSS Time 3</td>
<td>CPSS Time 2</td>
<td>.61**</td>
<td>.12</td>
<td>.45</td>
<td>.24**</td>
</tr>
<tr>
<td>(Unsupported</td>
<td>Group</td>
<td>.82</td>
<td>1.33</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>period)</td>
<td>Group X CPSS T2</td>
<td>.22</td>
<td>.35</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* B values are unstandardized coefficients. * p < 0.05. ** p < 0.01.

*Training Motivation (Stage of Change) (Hypothesis 3)*

Having found no intervention effects, further analyses were conducted to assess whether trainee motivation (stage of change) and levels of practice were pre-requisites for change. Because participants in the control group were not asked to practice, these analyses were conducted only on the data from training group participants. As shown in Figure 6, at time 1 the majority of training participants were in the earlier stages of change and “Pre-Contemplation” was the most common stage (38%)$^{88}$. By time 3, the majority of training participants were in the desired “Action” or “Maintenance” stages (52%).

---

$^{86}$ To overcome the problem of multi-collinearity baseline perceived stress was first centered on the mean.

$^{87}$ PrGroup was coded as 0 = traditional, 1 = technology

$^{88}$ Only 29 participants responded to the stage of change question.
Practise levels

Training participants were also asked how often they had been practicing the skills beyond the workshops. While time 2 captured practice levels during the supported period, when participants were attending workshops and coaching calls, time 3 captured practice levels during the unsupported period, when no reinforcement for practice was provided. As shown in Figure 7, in the supported period 14 out of 25 (56%) participants responded that they had been practising either “Sometimes” or “Fairly Often”. In the unsupported period this number dropped to 10 out of 26 (38%).
Relationship between stage of change and practice level (Hypothesis 4)

Tables 12 and 13 show the breakdown of participants at time 2 and time 3, according to practice level and stage of change. Practice level was dichotomised into Practiced (Sometimes or Fairly often), or Didn’t Practice (Never or Almost never) and stage of change was dichotomised into “Action or Maintenance”, or not in Action or Maintenance. A significant relationship between stage of change and practice level was found using fisher’s exact tests for both the supported period, p = .021, and unsupported period, p = .005. During both periods, participants in the “Action or Maintenance” stages of change were more likely to practise “Sometimes or Fairly Often” compared to participants in other stages of change who were more likely to report that they practised “Never or Almost Never”.

Table 12. Skills Practice in the supported period by Stage of Change

<table>
<thead>
<tr>
<th>Stage</th>
<th>Didn’t Practice</th>
<th>Practiced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Contemplation, Contemplation, Preparation, or Not Stressed at All</td>
<td>73% (8)</td>
<td>27% (3)</td>
</tr>
<tr>
<td>Action or Maintenance</td>
<td>23% (3)</td>
<td>77% (10)</td>
</tr>
</tbody>
</table>

Table 13. Skills Practice in the unsupported period by Stage of Change

<table>
<thead>
<tr>
<th>Stage</th>
<th>Didn’t Practice</th>
<th>Practiced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Contemplation, Contemplation, Preparation, or Not Stressed at All</td>
<td>92% (11)</td>
<td>8% (1)</td>
</tr>
<tr>
<td>Action or Maintenance</td>
<td>33% (4)</td>
<td>67% (8)</td>
</tr>
</tbody>
</table>

Because stage of change was not measured at Time 2, both Tables refer to Stage of Change at Time 3.
Analysis of Practice effects (Hypothesis 5)

To assess the impact of practice, repeated-measures ANOVAs were conducted for each of the mental health and coping measures, looking at both the supported period and the unsupported period. Looking at the supported period, significant Time by Practice level interactions were found for DASS Stress, $F(1,24) = 4.43, p < .05$, and Mindfulness, $F(1,24) = 6.45, p < .05$, with interaction effects found to be approaching significance for Depression, $F(1,24) = 3.55, p = .07$, PTSD, $F(1,24) = 3.89, p = .06$, and Resilience, $F(1,22) = 3.37, p = .08$. As shown in Figure 8, participants who practiced the skills experienced reductions in stress, depression and PTSD symptoms and an increase in mindfulness relative to those that did not practice. In addition, while resilience was stable for participants who practiced, it declined for those that did not.

Figure 8. Practice by Time Interactions during the supported period (time 1 to 2)
Examining the simple effects for the supported period, compared to those that did not practice, at time 2\(^90\) those that practiced reported significantly lower stress, \(t(24)=2.12, p<.05\), almost significantly lower PTSD, \(t(11.1)= 1.92, p = .08\), and significantly higher resilience, \(t(24)= -2.08, p < .05\). Significant changes were found between time 1 and time 2 for both those that practiced and did not practice. Participants that practiced reported a significant reduction in stress, \(t(14) = 3.25, p < .01\), a significant reduction in PTSD, \(t(14) = 2.46, p < .05\), an almost significant reduction in depression, \(t(14) = 2.09, p = .55\), and a significant increase in mindfulness, \(t(14) = -3.05, p < .01\). Participants who did not practice reported a significant reduction in resilience, \(t(9) = 3.30, p < .01\).

Looking at the unsupported period, a significant Time by Practice level interaction was found for PSS, \(F(1,23) = 6.89, p < .05\), and the interaction for GHQ was found to be approaching significance, \(F(1,24) = 3.64, p = .07\). As shown in Figure 9, those who practiced experienced declining wellbeing relative to those that did not practice.

![Figure 9. Practice by Time Interactions during the unsupported period (time 2 to 3)](image)

Examining the simple effects for the unsupported period, there were no significant differences between the practice levels on any of the variables at both time 2 and time 3. Significant changes were found between time 2 and time 3 for both those that practiced and did not practice. While participants who practiced reported a significant increase in both

\(^{90}\) There were no significant differences between the practice levels on any of the variables at Time 1.
PSS, $t(9) = -4.01$, $p < .01$, and GHQ, $t(9) = -4.33$, $p < .01$, participants who did not practice reported an almost significant increase in GHQ, $t(15) = -2.05$, $p = .058$.

*Qualitative Analysis*

As shown in Table 14, more participants were satisfied than unsatisfied in the first three workshops, with the final workshop being seen as the least helpful. The comments highlighted the diverse needs of participants in the group. Common suggestions across the workshops were to reduce the length of the workshops and to make them more interactive.

<table>
<thead>
<tr>
<th>Workshop feedback ratings(^{91})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>1 (Not Helpful)</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5 (Very Helpful)</td>
</tr>
<tr>
<td>Workshop 1 (n=54)</td>
</tr>
<tr>
<td>1 (2%)</td>
</tr>
<tr>
<td>4 (7%)</td>
</tr>
<tr>
<td>14 (26%)</td>
</tr>
<tr>
<td>23 (43%)</td>
</tr>
<tr>
<td>12 (22%)</td>
</tr>
<tr>
<td>Workshop 2 (n=34)</td>
</tr>
<tr>
<td>0 (0%)</td>
</tr>
<tr>
<td>1 (3%)</td>
</tr>
<tr>
<td>14 (41%)</td>
</tr>
<tr>
<td>11 (32%)</td>
</tr>
<tr>
<td>8 (24%)</td>
</tr>
<tr>
<td>Workshop 3 (n=52)</td>
</tr>
<tr>
<td>3 (6%)</td>
</tr>
<tr>
<td>5 (10%)</td>
</tr>
<tr>
<td>24 (46%)</td>
</tr>
<tr>
<td>14 (27%)</td>
</tr>
<tr>
<td>6 (12%)</td>
</tr>
<tr>
<td>Workshop 4 (n=36)</td>
</tr>
<tr>
<td>7 (19%)</td>
</tr>
<tr>
<td>10 (28%)</td>
</tr>
<tr>
<td>8 (22%)</td>
</tr>
<tr>
<td>9 (25%)</td>
</tr>
<tr>
<td>2 (6%)</td>
</tr>
</tbody>
</table>

*Workshop 1 Comments*

- Most students found it beneficial to learn practical ways of coping with stress, especially abdominal breathing, muscle relaxation and mindfulness.
- Some students also found it helpful to reflect on the ways that they cope.
- The most common improvement suggestions were to reduce the length of the workshop and increase the number of practical and interactive exercises.
- A few students also suggested including more breaks.

*Workshop 2 Comments*

- Most students found identifying their stressors and learning ways to cope beneficial

\(^{91}\) Due to time constraints feedback forms were not collected for one class in both workshops 2 and 4
• Several respondents specifically identified learning acceptance and action strategies.
• Frequent suggestions were made to shorten the workshop and make it more interactive.

**Workshop 3 Comments**

• Many students found applying the skills to the scenarios helpful.
• Many appreciated the experienced officer sharing his experiences of the job.
• Some students were disappointed that the workshop was in the middle of a study period.
• While several noted that the workshops had become more interactive, many others made suggestions that it needed to be even more interactive, with more scenarios, group discussions, videos and role-plays.
• Once again students reported a desire for the workshops to be shorter. One person commented that the conflict resolution content should complement, without repeating, material covered in the communications course.

**Workshop 4 Comments**

• Students commented that the revision was helpful especially the techniques of mindfulness, muscle relaxation and breathing.
• Consistent with earlier workshops, students reported a desire for the workshops to be shorter and to be more interactive.

**Helpfulness of learning supports**

As shown in Table 15, participants generally found the current learning supports helpful. The most helpful support was the coaching calls, followed by the audio recordings and SMS reminders, followed by the email reminders. Participants commented that they wanted more audios, including shorter and faster paced audios. Participants reported that the Smartphone App would be more helpful than the current learning supports, with 30 of 43 participants (66%) rating it as helpful. This was consistent with responses at the start of
training in which 28 out of 46 participants (60%) responded that they would use a Smartphone App to practise and learn new ways of managing stress.

Table 15  

*Feedback on learning supports*

<table>
<thead>
<tr>
<th></th>
<th>1 (Not Helpful)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 (Very Helpful)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio recordings</td>
<td>5 (10%)</td>
<td>13 (26%)</td>
<td>13 (26%)</td>
<td>14 (28%)</td>
<td>5 (10%)</td>
</tr>
<tr>
<td>SMS reminders</td>
<td>4 (8%)</td>
<td>13 (26%)</td>
<td>17 (34%)</td>
<td>10 (20%)</td>
<td>6 (12%)</td>
</tr>
<tr>
<td>Email reminders</td>
<td>6 (12%)</td>
<td>14 (28%)</td>
<td>17 (34%)</td>
<td>8 (16%)</td>
<td>5 (10%)</td>
</tr>
<tr>
<td>Coaching calls</td>
<td>4 (8%)</td>
<td>7 (14%)</td>
<td>19 (38%)</td>
<td>12 (24%)</td>
<td>8 (16%)</td>
</tr>
<tr>
<td>Smartphone App</td>
<td>2 (4%)</td>
<td>5 (11%)</td>
<td>8 (18%)</td>
<td>16 (36%)</td>
<td>14 (31%)</td>
</tr>
</tbody>
</table>

Comments on the overall program (as reported in the final coaching call)

- “The course was well run and I understood the main concepts.”
- “I realised once we started doing practical exercises that the course was important - I can now see why I shouldn’t cope with things by bottling them up.”
- “I understood the techniques and will use them in the future. I know that coping with stress is an important part of policing now.”
- “I was disappointed that some of my peers didn’t respect the program. They just don’t see it as relevant to their situation. Maybe it should be done at the station, when they might understand why it is needed.”
- “I have my own methods of coping with stress – I would have preferred not to attend”
- “There should be more police involvement” “The theory part was boring.”
- “The timing of the course was difficult. Friday afternoons were a struggle.”
- “Don’t schedule it during exams.”
- “The course was better when we were moving around rather than sitting still.”
- “It would be good to have more hands on activities.”
Discussion

The current study, which builds on the findings of study 1, evaluated the effectiveness of a revised version of the resilience-training program with a group of NSW Police recruits. While high attrition was addressed by making training compulsory for all participants in the training cohort, poor training transfer was addressed by making changes across three domains (trainee motivation, organizational factors and training design). This included adding coaching calls to personalise the training based on stage of change, getting experienced officers to talk about their experience of stress, and setting homework activities to encourage practice. Having made these changes, we expected improvements in the effectiveness of the resilience-training program compared to study 1 at all four levels of Kirkpatrick’s training evaluation framework (participant reactions, retention, behaviour change and workplace impact, in particular mental health outcomes). Consistent with study 1, while the participants of study 2 were generally healthy at time 1, significant time effects were found for almost all variables. The following paragraphs review the study hypotheses and study limitations before using Kirkpatrick’s framework to explore the effectiveness of the revised program and the implications of the findings, including whether the program is likely to achieve the long-term goal of preventing psychological injuries and examining the impact on training transfer of changes made to the program.

Consistent with study 1 and hypothesis one, better mental health at time 1 (as indicated by lower levels of depression, anxiety, stress, PTSD, GHQ and higher levels of resilience and positive affect) was found to be significantly associated with the targeted

---

92 We also expected that baseline distress and skills practice would moderate the impact of the training on mental health outcomes
93 Compared to study 1 scores, the mean scores in study 2 were only different for GHQ and AAQ-II, being slightly lower than study 1. In addition different measures were used for valued living and resilience
94 All distress measures plus unhelpful coping and experiential avoidance were found to reduce between time 1 (first week at the academy) and time 2 (first week of session 2 after attending their placement), before increasing again at time 3 (last week of session 2, after their final exam). In contrast, values progress and positive affect were found to reduce consistently over time, while mindfulness and resilience stayed constant.
mechanisms of change (higher levels of valued living progress and mindfulness, and lower experiential avoidance and maladaptive coping). In addition, the regression analyses demonstrated that when combined, these mechanisms explained a large share of variance in the different mental health measures, explaining between 33% and 53% of variation of each outcome measure. Largely consistent with study 1, when combined with the other mechanisms experiential avoidance remained a unique predictor of almost all of the mental health measures, while valued living progress, unhelpful coping and mindfulness were found to contribute unique variance to three or four mental health measures each.  

Hence, while experiential avoidance was the most beneficial mechanism of change, the continued focus on all four of the targeted mechanisms was justified by their unique mental health benefits.

Hypothesis two examined the impact of training on mental health and coping. While training was expected to result in mental health and coping benefits over the long-term, given that the police recruits in study 2 were generally well and not yet experiencing the stressors of the job, significant improvements in mental health and coping were neither expected nor found over the course of intervention. In the interim, we predicted that baseline distress would moderate the impact of training, with improvements being found for a subgroup of distressed participants. Inconsistent with hypothesis 2 and previous research (Flaxman & Bond, 2010b), baseline distress was not found to significantly moderate the effect of training.

Hypotheses three and four related to trainee motivation, as measured by stage of change, and skills practice. Consistent with expectations, participants began training at different stages of change, with the most common stage being pre-contemplation. Consistent with the intention of personalised stage-based coaching (hypothesis three), participants progressed along the stages of change, with the proportion in the desired “Action or

---

95 Unlike study 1, valued living was not a unique predictor of anxiety, stress or PTSD in study 2. This could have been due to the use of a different values measure or the sample being less stressed. Note: while the regressions in study 1 were conducted on the overall sample, in study 2 they were conducted on the matched sample, which was significantly less stressed than the unmatched sample.

96 Baseline distress refers to perceived stress at time 1.
Maintenance" stages increasing from 34% at time 1 to 52% at time 3. Also consistent with expectations, stage of change was found to be related to practice level at both time 2 and time 3, with participants in the “Action or Maintenance” stages being more likely to practice “Sometimes or Fairly Often”, while participants in other stages were more likely to practice “Never or Almost Never” (hypothesis three). Participants practised less in the unsupported period, with the proportion of participants practicing “Sometimes or Fairly Often” declining from 56% during the supported period, to 36% post training, likely due to the lack of reinforcement in maintaining practice.  

Hypothesis 5 predicted that training participants who practiced the skills would experience greater improvements relative to those that did not practice. The results were consistent with expectations during the supported period, when participants were attending workshops and coaching calls, but not in the unsupported period. During the supported period, participants who practised the skills experienced significant reductions in stress, depression and PTSD, and increases in mindfulness, while the only significant change for participants who did not practise the skills was declining resilience. In contrast, during the unsupported period, participants who practised the skills reported significantly greater increases in perceived stress and GHQ relative to those that did not practise.

**Limitations**

This study has three main limitations that impact our ability to draw conclusions about the effect of the training on participants’ coping behaviours and mental health. First, because none of the training participants in study 2 were more distressed than the average population, possible improvements in mental health were too small to be detected in such a small sample. Secondly, because the allocation to groups was not manipulated, it was not

---

97 Change in motivation in the unsupported period could not be measured because stage of change was not measured at Time 2

98 The overall baseline distress mean of 12.65 was well below the norms for US adults in the general population aged 25 to 34 (17.46). While the training and the control group participants reported similar means, of the 11 participants who scored 19 or above, none were in the training group.
possible to control for the influence of confounding influences such as the weather or study stressors\textsuperscript{99}. And finally, because practice was measured instead of being manipulated, we cannot be confident about the direction of causation in the relationship between practice and changes in mental health and coping.

The absence of psychological distress in the training participants is consistent with previous research with police officers (Perrin et al., 2007). Three explanations come to mind when considering why there were no distressed training participants. First, the use of mental health screening as part of the police selection process would have excluded participants with higher levels of distress from attending the police academy.\textsuperscript{100} Secondly, distressed participants may have underreported their symptoms due to a social desirability bias. Such behaviour would not be surprising given the stigma related to mental illness in the NSWPF and fears that disclosing distress may undermine one’s chance of being offered a job\textsuperscript{101}. Thirdly, consistent with the finding that the participants who dropped out of the study between time 1 and 3 were significantly more distressed than the participants who stayed, it is likely that any distressed training participants dropped out of the study\textsuperscript{102}. Given the expected role of initial distress as a moderator of change, future resilience training research with police should explore these explanations further and make appropriate adjustments.\textsuperscript{103}

\textsuperscript{99}Bearing in mind the negative impact of winter on mood, the influence of weather in this study can be seen at time 1 in the higher level of positive affect for the training group, which was followed from summer to winter, compared to the control group, which was followed from winter to summer. This is consistent with comments from many participants in winter, who complained about the cold weather in Goulburn.

\textsuperscript{100}It is also possible that there is a self-selection bias in which people with higher levels of distress are less likely to apply to become a police officer.

\textsuperscript{101}Disclosure fears were demonstrated by several comments from experienced officers that “It doesn’t matter what they might say formally, if I report that I am struggling with stress or some mental health condition, that is the end of my career.”

\textsuperscript{102}Although, the introduction of compulsory participation ensured that participants would complete the surveys, they still had the option to exclude their data at any time. The higher dropout rate for distressed participants could either be intentional or accidental. Intentional dropout could be due to social desirability bias driving the more distressed participants to exclude their data. Accidental dropout could be due to poor concentration leading more distressed participants to answer their anonymous code questions inaccurately.

\textsuperscript{103}For example, researchers in police settings should consider using a social desirability scales to detect and control for social desirability bias (Van de Mortel, 2008).
Looking at the direction of causation for the practice hypothesis, it is possible that the association between practice and stress reduction over the supported period could be due to a third factor that freed up time and energy to allow participants to start practicing. One factor that comes to mind is study stressors, which arguably reduced between time 1 and time 2\textsuperscript{104}. Of course, the relationship between practice and distress may also be bi-directional, with practice in the supported period causing a reduction in symptoms, and symptom reduction freeing up time and energy for participants to practice. The alternative direction of causation could also explain why practice was related to increasing distress in the unsupported period. That is, increasing distress related to exam pressures immediately before Time 3\textsuperscript{105} may have prompted the participants to start practicing the skills. Other limitations that should be noted when interpreting the results include:

- The short duration of the study precludes the assessment of long-term benefits, in particular the extent to which training reduces rates of psychological injuries.
- Because the training was delivered with police students at the academy, the results may not be generalizable to active police officers.
- Stage of change at time 1 was assessed retrospectively, so it is subject to recall errors.
- Because the calls were conducted by different coaches and the fidelity of these calls was not measured, the participants may have had different coaching experiences.
- Because participants completed the time 2 measure before the final workshop and the final coaching session were conducted, results for the supported period do not fully reflect the impact of the intervention.
- Adjustments were not made for violations of the assumptions of parametric tests.\textsuperscript{106}

\textsuperscript{104} At Time 1, participants were in their second week at the academy, getting used to a new environment with a packed schedule. In contrast, participants were much more confident and had no immediate assessment tasks due at time 2, which was their second day back from their placement.

\textsuperscript{105} Time 3 was at the end of the participants final exam period.

\textsuperscript{106} While we acknowledge that this is a limitation of the interpretation of the results, especially given that several of the variables had skewed distributions, we believe that the analyses that we conducted were in general robust to assumption violations.
• Several of the practice effect findings were only approaching significance.

• The small sample size, especially for the training group, increased the probability of making type II errors, with small effects that might have occurred during the intervention being unlikely to be detected as significant.

• The possibility of family-wise error, with the probability of making one or more type I errors (significant findings that are actually false), being inflated by the large number of analyses that were performed.

Review of Training Effectiveness

Kirkpatrick’s Level 1 – Training Reactions

Consistent with expectations, the majority of participants reported that both workshops 1 and 2 were helpful. In workshops 3 and 4, the helpfulness ratings declined considerably, with half of the participants having a neutral opinion of workshop 3 and half reporting that workshop 4 was not helpful at all. Possible explanations for the poorer reactions for workshops 3 and 4 include issues with trainee motivation, competing priorities and the socialisation of stigma reducing the willingness of participants to acknowledge personal issues and engage meaningfully. Beyond the workshops, it was comforting that the new learning supports were well received by the participants, especially the coaching call and the audio recordings. Overall, while the changes to the program were successful at improving participant reactions, there remains room for improvement.

Kirkpatrick’s Level 2 – Knowledge retention

To overcome the poor levels of retention found in study 1, additional practice activities and personalised coaching were added to the program. While retention in the unsupported period was not assessed, conversations with training participants on the final coaching call indicated that the program changes had been successful at improving knowledge retention within the supported period. In particular, when compared to the
participants in study 1, the participants in study 2 demonstrated a greater understanding of key concepts such as the stress response, resilience, helpful and unhelpful coping, acceptance and control, and they were also more familiar with different coping techniques, and where they could go to access additional support.

*Kirkpatrick’s Level 3 – Behaviour change*

All expectations relating to motivation and practice were met, with participants progressing along the stages of change and the amount of practice increasing compared to study 1. These findings are important as they show that the inclusion of new motivational strategies including personalised-stage based coaching had been successful at motivating participants to start taking care of their mental health. Furthermore, while attitudes were not formally assessed, informal conversations indicated that we had some success at normalising and reducing stigma related to stress and increasing the confidence of participants to cope with stress. If the participants can maintain this change and keep practising the skills on the job, they will be well placed to avoid developing psychological injuries.

While the training participants practiced the skills more in study 2 than study 1, the number of training participants who did not progress along the stages or did not practise, and the drop off in practice in the unsupported period demonstrated that there is still considerable room to improve training transfer. Opportunities for improvement can be found by looking at aspects of the program that were beyond our control in study 2. This includes delaying training until participants start the job, and increasing the involvement of leadership, peers and supervisors to reinforce and normalise proactive stress management.

*Kirkpatrick’s Level 4 – Impact on mental health and coping*

The findings regarding the impact of the training on the participants’ mental health and coping were mixed. Supporting the program’s effectiveness were the correlations and regressions, which showed that the mechanisms of change once again explained a large share
of variance in the mental health outcomes. In addition, the results of the practice moderation analysis\textsuperscript{107} in the supported period were consistent with our expectation that practice would cause improvements in mental health and coping. Of concern were the absence of time by group interactions for distressed participants, and the relationship between practice and increasing distress in the unsupported period. However, as stated above we are unable to draw conclusions from the time by group effects due to the lack of distressed participants in the training group and our inability to control for confounding factors.

Looking more closely at the relationship between practice and distress in the unsupported period, because the correlations and regressions showed that the mechanisms targeted by the practice exercises were all consistent with lower levels of distress, it is unlikely that the participants would have experienced increasing distress if they practiced the skills as intended. A more likely explanation for the different relationships with practice is that the skills practiced in the unsupported period by participants were different to those practiced in the supported period. This is especially the case given the vague nature of the practice self report question and the different contexts. In particular, practice during the supported period was externally reinforced and guided, with participants directed to engage acceptance and action strategies, and coincided with a reduction in experiential avoidance. In contrast, practice in the unsupported period was self driven, unguided, and coincided with a significant increase in experiential avoidance.\textsuperscript{108} In this context, it would not be surprising if the increasing level of distress reported were caused by increasing experiential avoidance motivating the participants to practise unhelpful coping skills.

\textit{Program Review}

\textit{Review of Changes related to Trainee Characteristics}

\textsuperscript{107} Setting aside uncertainty relating to the direction of causation

\textsuperscript{108} Experiential avoidance was found to increase significantly in the unsupported period, $F(1,24) = 4.21$, $p=0.05$, possibly due to exam pressure triggering pre-existing predispositions to experiential avoidance. Experiential avoidance could also have been a by-product of socialisation into the police culture.
Several changes were made in study 2 to address the negative impact of poor trainee motivation on training transfer. While the impact on poor attendance was addressed by introducing compulsory participation, attendance was not enough to ensure that involuntary participants with low interest would leave better equipped to handle future stressors. To achieve this goal, the training needed to motivate uninterested participants to engage and practice the skills, without frustrating participants who were already motivated and engaged. The challenge of engaging participants with different levels of motivation was addressed by adding a combination of general motivational activities in the workshops and personalised, stage-based coaching calls. While the coaching calls and initial workshops were well received, and they succeeded in progressing participants along the stages of change, these successes were offset by poor reactions to workshops 3 and 4. The poor reactions were likely due to the focus in workshops 3 and 4 on “skills application”, which was frustrating for those participants who were not yet in an action stage of change for stress management, especially considering that they had more urgent priorities such as exam preparation.

**Review of Changes Related to Transfer Climate**

Several actions were taken to both improve the transfer climate for resilience training at the police academy and to minimise the impact of uncontrollable negative influences on training transfer. These actions included attempts to improve leadership support for the program, and to counter the negative effects of the socialisation of stigma and emotional

---

109 The coaching calls were a compulsory part of the training, with participants selecting a time for their calls at the end of workshops 2 and 4. While some participants were initially reluctant to take the call, most responded well when they realised that the call was an opportunity for them to discuss whatever they wanted to discuss.

110 At first the coaches found that many participants were not being available for their time slot. This was addressed by sending SMS reminders.

111 In comparison to the focus on skills application for participants in workshops 3 and 4, the focus of workshops 1 and 2 was on information sharing. Workshop 3 was held a week before session 1 exams.

112 Although the post-training climate plays a key role in promoting ongoing practice and facilitating the generalisation of the skills, this was not addressed in study 2 due to a lack of access to peers and supervisors in the wider police force.

113 Leadership support for the program was especially important given the number of competing priorities faced by the participants and need to address negative aspects of the climate.
detachment. Unfortunately, these actions were largely ineffective. While the leadership team responded positively to a call for more support, their advocacy and involvement was not reliable and dropped off considerably following a change of government.

- Actions taken to reduce mental health stigma\textsuperscript{115} failed to gain traction due to the entrenched nature of mental health stigma in the police culture and unreliable leadership support.
- Attempts to counter the negative impact of stigma on training engagement\textsuperscript{116} had mixed results, with the benefit to participants of being able to participate without needing to declare an interest in wellbeing offset by the distracting presence in the workshops of involuntary participants, making stigmatising comments.
- The conflict between resilience training and the other police training programs on how to handle distressing emotions was not addressed\textsuperscript{117}. While resilience training emphasised flexibility, and acknowledged that emotional detachment and control could be helpful to stay focused in the midst of a crisis, it was not possible to get other lecturers to acknowledge the importance of re-engaging with emotions when not under threat and accepting discomfort.

\textit{Review of Changes Related to Training Design}

Several design changes were made to the program to improve training transfer, including improving the relevance of the content and increasing skills practice. To improve relevance more links were drawn to policing in the workshops, psychology jargon was

\textsuperscript{114} When asked to indicate concerns that would affect their decision to seek help for a psychological problem, 17\% of participants at time 3 agreed with “I would be seen as weak”, and 14\% agreed with “it would harm my reputation”. There were no significant differences between the ratings for the training and control groups.

\textsuperscript{115} Two strategies were introduced to reduce mental health stigma at the police academy: 1) inviting experienced police officers to the workshops to share their experiences and normalise the experience of stress; 2) briefing lecturers on the resilience program and encouraging them to normalise help seeking.

\textsuperscript{116} Several strategies were introduced to reduce the impact of stigma on engagement, including compulsory participation, private practice opportunities and reframing resilience as about strength.

\textsuperscript{117} Resilience training emphasised the acceptance of distressing emotions, while other programs advised police recruits to control their emotions.
removed, certain content was moved to workshop 1 and experienced officers were invited to share their experiences of stress on the job. To increase skills practice, more exercises were included in the workshops and homework was assigned for participants to complete away from the workshops. Furthermore, compliance with homework was maximised by providing guided audio recordings and SMS reminders to make it easy to complete the homework, and by conducting coaching calls to personalise, motivate participants, and reinforce homework completion. In the final coaching session, participants were provided a powerpoint performance guide that they could use to remember the skills in the unsupported period. As described below these changes were largely effective:

• While the ratings, comments and observations indicated that workshops 1 and 2 were perceived as more relevant than the early workshops in study 1, the later workshops were perceived as less relevant. The additional practice exercises in the workshops were well received, apart from requests that they be made more interactive.

• In the supported period, participants reported that the coaching calls, online audio exercises and SMS reminders were very helpful and they requested more audio exercises. The calls were especially useful for overcoming resistance to completing homework, to guide participants towards appropriate homework tasks, and to acknowledge and reinforce homework completion. Compared to study 1, these changes led participants to practise the skills more in the supported period. Furthermore, a higher level of practice in the supported period was associated with mental health and coping improvements.

• While it was not surprising that practice levels reduced in the unsupported period when there was no reinforcement, it was surprising and concerning that practice in this period was associated with increased distress.

118 The values and goals content was brought forward as it was more immediately relevant to all participants including those who had no concerns with stress.
**NSW Police Recommendations**

Based on the findings of studies 1 and 2, the following pages document a series of recommendations for the NSW Police related to resilience training (see Appendix 1 for the full report). While deploying resilience training separate to primary interventions that address stress triggers was appropriate in studies 1 and 2, if the same approach was taken in a wider deployment, it could be perceived that the NSWPF leadership was neglecting their responsibility for addressing toxic work environments, with employees left to find a way to cope in an unhealthy workplace (Giga, Cooper, & Faragher, 2003). In addition to being more ethical, as outlined in chapter 2, an integrated approach is consistent with research showing better outcomes from interventions that are both bottom up (employee training) and top down (work redesign) (Bond et al., 2008; Bond & Bunce, 2003).

1. **Reduce the length of training**
   - Many participants in a universal, mandatory resilience training program are not looking to, or ready to change their coping behaviours. Therefore, to avoid wasting time and resources, the length of the program should be reduced to the essential content delivered in two workshops spaced close together.

2. **Reduce the gap between resilience training and starting the job**
   - Resilience training can be expected to become more relevant and engaging to participants when they start working as police officers. If there is a long gap between attending training and starting the job, it is likely that participants will forget the skills before they recognise their importance. To maximise training transfer the workshops should be scheduled closer to starting the job.

---

119 This is consistent with the perceptions of several experienced officers at the resilience training, who commented that their leadership only wanted to implement resilience training to meet legal obligations and that they really didn’t care about the wellbeing of employees.
3. **Refine the workshop content**
   - The two workshops should include a refined version of the existing workshops 1 and 2, incorporating the interpersonal skills content from workshop 3.
   - The focus of the workshops should be on building a common language around stress and ways of coping, normalising stress, developing an awareness of a broad range of coping skills, motivating participants to build better coping habits and orienting participants to tools that they can use to practise these skills and where they can get more information and support when they have a need.
   - Between the two sessions, participants should be required to practise the skills.

4. **Training should be tailored to individual needs**
   - Provision should be provided for participants to address their unique needs.
   - Participants should complete a simple self-assessment (including strengths, weaknesses and motivation to change).
   - The self-assessment output should include a list of tailored activities that participants can independently complete (in private) to become more resilient (including activities to build motivation if necessary).

5. **Coaching calls**
   - While participants valued the coaching and it helped to tailor the program to the needs of each participant, coaching is time intensive and it would be difficult to conduct on a larger scale. If coaching is to stay in the program, to be effective it needs to have a clear focus, such as on actioning the output of a self-assessment.

6. **Maintain compulsory attendance**
   - Keeping in mind the impact of workload and stigma on reducing attendance when the program was voluntary (in the pilot study), it is recommended that attendance in resilience training remain mandatory.
7. *Address stigma in the broader organisation*[^120]

- To be successful, the training must fit with the organisational culture. Stigma related to having mental health challenges puts resilience training at odds with the NSWPF culture. It reduces the likelihood that officers seek help, stops communication, and prevents colleagues from offering support. It also reduces the likelihood that officers pay attention to the content.

- It is recommended that the NSWPF introduce an organisation wide campaign to reduce stigma, normalise stress and encourage help seeking. Two appropriate strategies for diminishing stigma are education and contact (Corrigan, 2004). Contact refers to highlighting officers with stress-related problems who are able to hold down their job, encouraging these officers to share how they have coped.

8. *Integrate the emotional components of resilience and crisis training*

- Officers need to understand why constant emotional detachment is not healthy and they need to know how to re-engage emotionally after work.

9. *Led by the organisation*

- For resilience training and any stigma reduction effort to be effective, it needs to be driven and co-facilitated by experienced police officers that are natural leaders in the organisation. That is people who other officers are influenced by.

10. *Improve post-training support*

- In order for supervisors and peers to be able to reinforce skills taught in resilience training, established officers need to be provided training on supporting colleagues under stress. This should include a briefing on resilience training and encouragement for supervisors to reinforce the training with new recruits.

[^120]: To facilitate ongoing practice and the generalisation of resilience training skills, attention must be made to improving the post-training climate in the wider police force, targeting improved peer and supervisor support and countering the socialisation of stigma and emotional detachment. (Recommendations 7-10)
11. **Develop a more sophisticated performance aid**

- Performance aids, also known in the literature as performance support tools, job performance aids or job aids, refer to tools that support people to perform tasks more efficiently and effectively (Jackson, 2012; Paino & Rossett, 2008).

- To help officers tailor the training to their own needs, and to refresh their skills as required, it is recommended that sophisticated performance aids be developed to make it easy for participants to practise the skills privately and effectively.

- To maximise adoption, any performance aid should be introduced during the workshops to ensure that participants are familiar with using it.

12. **Research**

- In order to measure the impact of the resilience training on participants’ long-term coping habits and mental health, further research will need to be conducted following participants up over several years on the job.

- To be able to make claims of effectiveness, such a longitudinal study would require a randomly assigned training and control group, that are matched in terms of demographic makeup, with mental health and coping measured at same times.

- Detecting and controlling for social desirability bias on responses to socially sensitive mental health items is particularly important, as such bias makes it harder to detect symptom change (Van de Mortel, 2008).

13. **Address Problematic Stressors**

- In addition to deploying resilience training, the NSWPF should take actions to address both problematic stressors faced by officers on the job, in addition to stressors observed during the training program\(^\text{121}\). Stressors at the academy include difficulties adjusting to new living arrangements, concerns about where...

---

\(^{121}\) Significant changes in distress and coping over time were found for almost all measures in study 2, with distress and coping declining in participants in both groups between times 1 and 2 before increasing to a higher level at time 3. A persistent decline in values progress and positive affect reflected socialisation into police culture and career restraints (e.g. inability to choose placements etc).
they might be posted, and difficulties keeping up with the busy course schedule, especially during the exams and around assessment submission dates.\footnote{Performance worries were particularly intensive given the large financial investment students had to make before being offered jobs as police officers.}

**Conclusion and Recommendations for future research**

In addition to informing the recommendations to the NSW Police, the current study provides qualified support for the effectiveness of the revised resilience-training program. It also demonstrated that changes made following study 1 were successful in enhancing training transfer. These include motivational changes that progressed participants along the stages of change for stress management, and design changes that increased the relevance of the program and increased skills practice. Furthermore, consistent with the practice hypothesis, we found a relationship between practice in the supported period and mental health improvements. During the *supported period*, participants who practised the skills experienced significant reductions in stress, depression and PTSD, and increases in mindfulness, while the only significant change for participants who did not practise the skills was declining resilience.

Due to the limitations of the current study, including a lack of distressed participants and our inability to control for confounding factors, we are unable to make any firm conclusions about the program’s effectiveness. There was no straightforward evidence that the intervention improved outcomes relative to the control. Nonetheless, when considering the great benefits that effective resilience training could deliver for both employees and employers, the results justify conducting additional research to further evaluate the program’s effectiveness and optimise the program design.

Further research should focus on assessing the short-term effectiveness of the program in terms of motivating participants to progress along the stages of change for stress management and improving the mental health of distressed participants, including the impact
of practice on mental health changes. If as expected, the effectiveness of the program with distressed participants is confirmed and can be optimised, we recommend conducting a longitudinal study to assess the long-term impact of training and practice on stigma, coping, and mental health, including assessing whether training participants have a lower lifetime rate of psychological injuries compared to officers that don’t attend training. This is especially important given the considerable investment that would be required to deploy the program more widely and the potential downside that may occur if participants do not engage with the program or if they practice the wrong skills.

Study designs should seek to overcome the limitations of the current study by ensuring samples include distressed participants and by using random allocation and a practice manipulation to control for confounding factors such as the weather, study stressors, and instructions. This would ideally have three groups: no training, training only, training plus practice. In addition to manipulating practice, we recommend measuring the amount of practice and the type of practice, and finding ways to overcome the impact of mental health stigma and symptom underreporting on the program evaluation. At the same time as evaluating the overall program’s effectiveness, additional research should seek to identify and test program refinements that could enhance training transfer and make the program more practical to deploy. We begin the following chapter by outlining our third and final study, and draw on our experiences in studies 1 and 2 to identify program refinements that were expected to: 1) promote increased levels of practice; 2) address concerns related to practice in the unsupported period by providing more tailored guidance with skills practice; and 3) reduce the cost of deploying the program, while maintaining fidelity and effectiveness.
CHAPTER 5: Study 3 – Resilience Training ANU Psychology Students (2013)

Building on the previous studies, a third and final study was conducted to further improve the resilience-training program, confirm its effectiveness and assess whether the research findings from studies 1 and 2 generalise beyond a police population. The study was conducted with a group of third year psychology students at the Australian National University (ANU). While the transfer climate for resilience training at the NSW Police academy was negative due to high levels of mental health stigma and the motivation to hide symptoms to demonstrate fitness for employment, the transfer climate amongst the ANU psychology students in study 3 was expected to be more favourable for three reasons:

• **Firstly**, there was expected to be a stronger alignment between the participant’s interests and the training objectives given that resilience training is a psychological intervention and the participants were studying psychology.

• **Secondly**, given their understanding of the aetiology of mental health issues and the principles of ethical practice, mental health stigma was likely to be lower amongst psychology students.

• **Thirdly**, psychology students were expected to be more honest about mental health difficulties and more open to exploring acceptance strategies for difficult emotions. This is because the psychology students faced fewer consequences for disclosing this type of information than the police recruits, who were being evaluated for a job that requires high levels of resilience.

Like studies 1 and 2, with the majority of participants anticipated to have low stress levels at the start of the program, we did not expect overall changes in mental health changes in the short time period of the evaluation. However, we did expect mental health benefits to be found for participants who have high levels of baseline distress. The psychology students were anticipated to report greater baseline distress than police recruits. This was because,
unlike police recruitment, the selection process for undergraduate programs at the ANU does not exclude applicants with high levels of distress and once they join the program, they are not penalised for disclosing distress. Furthermore, researchers have found that undergraduate students report higher levels of distress than the general population, especially in their final years at university (Bewick, Koutsopoulou, Miles, Slaa, & Barkham, 2010). With higher levels of baseline distress, it was expected that the program would have a bigger impact and that it would be easier to detect improvements. In addition to examining the influence of initial distress, we also explored the influence of social support on training outcomes.

In both studies 1 and 2 the amount of variation in the mental health measures explained by the behavioural mechanisms targeted\textsuperscript{123} by resilience training was found to be large and significant. As such, these mechanisms, which included decreased experiential avoidance, decreased maladaptive coping, increased mindfulness and increased valued living, were not changed in study 3. Instead, the focus of program improvements turned once again to enhancing training transfer. Improvements were made to increase the level of tailoring support and a series of design changes were introduced to promote progress along the stages of change and to increase helpful forms of skills practice\textsuperscript{124}. Changes were also introduced to make the program more cost-effective and practical to deploy on a larger scale. The following pages describe these program improvements in detail.

\textit{The stage-matched approach to change}

As a universal prevention program, training transfer for resilience training can only be maximised by an inclusive approach that acknowledges and accommodates diversity in the needs of participants, as opposed to a one-size-fits-all approach. As in the previous study, the unique needs of the participants in study 3 were addressed with a stage-matched approach consistent with the Transtheoretical model of change (TTM) (Prochaska, Prochaska, &

\textsuperscript{123} This refers to the targeting of new behaviours/skills and replacing unhelpful behaviours.

\textsuperscript{124} Due to the more favourable transfer climate expected in study 3 only minimal attention was given to climate.
Levesque, 2001). One of the key principles of the TTM is that interventions should engage change processes that match each participant’s stage of change (Prochaska, Norcross, & Diclemente, 2013). In study 2, this principle was implemented by providing a combination of compulsory workshops, to ensure all participants were exposed to change processes of relevance to early stages of change, and compulsory, stage-matched coaching and homework activities that engaged other change processes as required. These change processes included:

- **Workshops** – Consciousness-raising about stress and resilience, learning skills that support resilience, exploring the potential benefits of building resilience, both personally and for the organisation.

- **Coaching calls and Homework** - Building awareness of the personal impact of stress, bringing attention to stress-related emotional experiences, being empowered to make changes, exploring resistance to change and eliciting change talk, committing to take action, counter-conditioning (making it easy to substitute new behaviours like calm breathing for unhelpful behaviours), removing triggers for problematic behaviours, receiving intrinsic and extrinsic rewards for making changes.

The results of study 2 demonstrated that this approach was effective at progressing participants along the stages of change. In addition, increased skills practice in the supported period was found to relate to mental health improvements as expected. However, the study also revealed three problems with the program. *Firstly*, the reactions towards workshops 3 and 4 were quite negative, likely because these workshops, which focused on skills application, were not relevant for early-stage participants. *Secondly*, although the coaching calls in study 2 played a critical role in tailoring the homework activities (including skills practice) to the unique needs of each participant and reinforcing participants for practicing the skills, it became clear that mandatory coaching calls would be logistically difficult and

---

125 The stage-matched approach contrasts with the action-oriented, one-size-fits-all approach that is common in much of the literature on stress management training.
possibly cost-prohibitive for organisations like the NSWPF to include in an organisation-wide deployment of resilience training. Thirdly, skills practice in the unsupported period was found to relate to increased distress, possibly because the absence of tailoring support resulted in participants practising skills that were inappropriate for their needs (for example, they may have engaged an action strategy to cope with an uncontrollable stressor).

To address these problems, three major changes were made to the program in study 3. First, the poor reactions to workshops 3 and 4 were addressed by consolidating the content of all the workshops into a single, compulsory two-hour session that was relevant to participants in all stages of change. Secondly, the program’s affordability and issues with unguided practice were addressed by replacing the coaching calls and learning supports with sophisticated, affordable, performance aids\(^{126}\) that could be cost-effectively deployed to all employees to assist with tailoring and completing the homework. Two performance aids were developed for use in study 3, a Smartphone-App and a paper workbook, and their effectiveness was compared. Thirdly and finally, to support participants in progressing along the stages of change and practising the skills, participants were assigned a daily homework task to complete using the performance aids.\(^{127}\)

*Program design changes*

The *workshop content* was largely kept consistent with the program delivered in study 2, apart from making it more concise to fit into one session, replacing police references with references relevant to ANU psychology students, removing the skills application discussions\(^{128}\) and adding a brief review of behaviour change principles. Drawn from the literature on habit formation (Gardner, Lally, & Wardle, 2012; Judah, Gardner, & Aunger, 2013), this review was placed at the end of the workshop to provide a rationale for the daily homework. It highlighted the habitual nature of coping, how coping habits are cued by

\(^{126}\) At any time, participants could request a coaching appointment if they wanted additional guidance.

\(^{127}\) The homework task was set reinforced by weekly emails.

\(^{128}\) These discussions were removed due to their poor relevance for early-stage participants.
triggers such as stressors or symptoms, how coping habits are formed based on past experiences, and how a new coping habit can be built by repeatedly practising a coping skill in the same context.

While workshop consolidation and the replacement of coaching calls with performance aids had many advantages, by reducing the level of interaction between facilitators and participants, these changes also reduced reinforcement for the training. Similar to the poor adherence difficulties found in many self-driven website interventions (Christensen, Griffiths, & Farrer, 2009), the absence of external reinforcement made it possible that the adoption and engagement with the performance aids would be poor, and that participants would make less progress along the stages, and practise less than the participants in study 2. The daily homework task was designed to address this risk. By providing a focal activity for participants to complete regularly over a five-week period, that was relevant to most participants and easily reinforced via email, the homework task aimed to maximise adoption of the performance aids and maximise the level of skills practise.

Instead of focusing on building specific coping habits, which may or may not be personally helpful to all participants, the daily homework task focused on building self-awareness and developing the meta-habit of coping flexibility. This task involved participants reflecting on their day, logging their stressors and symptoms in the performance aid, and identifying and practising coping skills that could help address those stressors and symptoms. Over the five-week period, participants were encouraged to review their logs, to become more aware of their most frequent stress symptoms, stressors and coping activities, and to identify specific coping activities that they wanted to practice and make into a habit.

While the homework was voluntary to minimise resentment and foster a more sustainable self-driven engagement in resilience building, homework compliance was maximised by following the guidelines by Detweiler and Whisman (1999). This included
making sure the instructions were clear, making it easy for participants to use the performance aids to tailor the homework to their needs, by making it easy and quick to complete, and by providing external reinforcement for completing the daily homework in the form of emails from the facilitator and encouragement in lectures and tutorials. As an incentive to stay engaged in the logging process, participants were also entered into a prize draw for submitting their practice logs.\textsuperscript{129}

Resistance to change and objections to doing the homework were addressed in the workshop by exploring the pros and cons of the stress-logging task. In the context of their increased understanding of stress and resilience, it was hoped that this exploration would help participants see that the effort associated with the homework task was minimal compared to the potential benefits of preventing chronic stress problems. Alternative actions were suggested to participants who remained in a pre-action stage of change based on why they were not ready to practice the skills. If they perceived that stress management wasn’t important they were prompted to explore pros and cons of change, if they had low confidence in their ability to change they were recommended to attend a coaching session, and if it just wasn’t a good time they were encouraged to set a reminder to re-engage at a better time.

In addition to making the resilience-training program easier and more affordable to deploy, performance aids are especially appropriate for the circumstances of a universal program, in which many participants may not be ready to take action immediately. This is because they assist them to progress along at the stages of change at their own pace. By providing resources that can be accessed at anytime, they make it possible for participants to develop the skills whenever they are ready to take action, and they reduce the amount of time required for skills practice in the initial workshop (Coultas et al., 2012). While three types of performance aids have been identified: informational (which assists with recall of

\textsuperscript{129} Entering the prize draw was not conditional on practising the skills (e.g. they could have entered blank logs).
information), *coaching* (which uses questions to direct the user towards optimal solutions), and *procedural* (which provide step-by-step guidance on completing a task), to fulfil key functions previous performed on the coaching calls, the performance aids used in study 3 incorporated aspects of all three types. The next section outlines the considerations related to the design of the performance aids including the rationale for developing both the App and workbook versions.

*Performance aid design considerations*

The design of the performance aids in study 3 had three key goals. Firstly, they needed to enhance training transfer. Secondly, they needed to perform functions previously performed by the coaching calls and learning supports. Thirdly, they needed to integrate with the other components of the program, by reinforcing the change processes activated in the workshop, and by maximising homework engagement and compliance. To achieve these goals, the following functions were included in the design of the performance aids:

- **Informing** – Providing key information on stress, resilience and change;
- **Guiding** – Providing step-by-step guidance for practising the skills
- **Tailoring** – Tailoring coping activities that can help with a participant’s symptoms and stressors, and tailoring homework based on their stage of change;
- **Nudging** – Prompting participants to do homework, including applying, generalising and maintaining the skills, or other actions that lead to progress along the stages;

In simple terms, informing and tailoring assisted participants to identify what changes to make, while nudging and guiding assisted them with how to make those changes.

Although the informing and guiding functions could easily be built by making the workshop materials and back up readings available in an accessible format, the tailoring and nudging functions were more challenging to build. This was especially the case for stress management, which, compared to simpler behaviours like smoking cessation, is more
complex, and involves multiple interwoven behaviours. One way to accommodate complexity in the design of the tailoring and nudging functions is through incorporating technology, such as computerised expert systems (Prochaska et al., 2001). While research looking at the use of performance aids in stress management training is extremely limited, positive outcomes were found for a stage-matched stress management program which consisted of a series of three computer generated tailored reports (Evers et al., 2006). Participants used these reports as performance aids over a six-month period to guide them through the development of stress management skills. Compared to a control group, participants in the intervention group reported greater progress along the stages of change, greater reductions in stress and depression, increased use of helpful stress-management behaviours, and decreased use of unhealthy behaviours.

Sophisticated and effective mental health interventions have also been developed using internet applications (Griffiths et al., 2010; Proudfoot et al., 2011; Ritterband et al., 2009), and Smartphone Apps (Boschen, 2009a, 2009b; Donker et al., 2013; Miller, 2012). In addition to accommodating complexity and making interventions more accessible, by making it possible to engage anonymously, technology can overcome stigma-related barriers to engagement. This is especially useful in groups with high mental health stigma, such as soldiers, who report being more willing to access support using technology, as opposed to support involving a person, such as a therapist or counsellor (Wilson, Onorati, Mishkind, Reger, & Gahm, 2008).

Of the technologies described above, smartphones Apps have a set of features that make them especially attractive for mental health interventions. Their ability to quickly process large amounts of data, combined with their internet connectivity and multimedia

---

130 Note: In the study by Evers et al (2006), the entire program was delivered by performance aids and the participants reported average clinical levels of depression and relatively high levels of stress. In comparison, in the current study, the performance aids were used as a follow-up to the mandatory workshop and the participants were expected to be psychologically healthy on average.
RESILIENCE TRAINING IN THE WORKPLACE

150

capabilities (text, audio, images, video) can be used to enable a range of useful functionality, such as real time symptom and activity monitoring, guided exercises, progress tracking, reminders and personalised feedback (Miller, 2012). Apps can be deployed for independent, self-help use, or, as is the case for study 3, they can act as an adjunct to a more traditional delivery method, such as face-to-face training or therapy. As an adjunct, Apps can provide participants a convenient and portable platform to maintain and generalise new skills, away from the therapeutic or training context. In this capacity, Apps have potential to greatly improve intervention adherence and homework compliance (Clough & Casey, 2011, 2015).

While many self help Apps have been developed for mental health issues, few have independent research to support their effectiveness (Donker et al., 2013). The research on Apps used as an adjunct is even more limited (Clough & Casey, 2015). However, initial research on Apps used alongside therapy is promising (Palmier-Claus et al., 2013; Rizvi, Dimeff, Skutch, Carroll, & Linehan, 2011) and in the workplace context, positive outcomes have been found for a stress management program that used an ACT-based App as an adjunct to SMS-delivered coaching (Ly, Asplund, & Andersson, 2014). The current study built upon this literature by being the first to investigate the use of a smartphone App as an adjunct to a universal resilience-training program. Unlike the study by Ly et al (2014), which was voluntary and involved regular interaction with a coach, the current study included participants from all stages of change and involved minimal interaction with the facilitators beyond the workshop.

One of the constraints of investigating an App as an adjunct to a universal program was that participants needed to have access to the technology, and they needed to be willing to use it for stress management. Almost one third of the police recruits in study 2 stated that they “would not be willing to use a smartphone App to practise and learn new ways of

131 As a voluntary program, it likely included mainly participants in the later stages of change
managing stress”. To support participants such as these, an alternative, paper-based performance aid was developed and evaluated in study 3. While both the App and workbook performance aids were designed to maximize training transfer and built to a standard that enabled the key hypotheses to be tested, their final design was constrained by the time and resources available for the project. This was especially the case for the App, which required significant upfront investment and was costly to revise. The following section describes how the four functions previously performed by the coaching calls and learning supports were performed in both the App and workbook performance aids.

Performance aid functions

The tailoring function assisted participants to personalise their homework activities to match their stressors, symptoms, and stage of change. Tailoring of the coping activities began with entering stressors and symptoms on a stress log. Workbook participants manually looked up each symptom and stressor using the resilience model diagram to identify corresponding coping activities. In contrast, a list of coping activities in the App were automatically suggested based on prescriptions drawn from the resilience model (e.g. calm breathing was prescribed for heart racing symptoms). The App also prioritised multiple coping suggestions based on what would be most helpful to do first (e.g. suggesting calm breathing before problem solving).

From the suggestions list App users could click on each coping activity to access related information and guided instructions. Compared to both the coping activity above and the tailoring done in Evers (2006), tailoring by stage in the performance aids was much less sophisticated. Participants were prompted to assess their motivation when they first started logging stress and those with low motivation were redirected towards motivation-based activities instead of stress logging. For workbook participants, this redirection occurred via a resilience model diagram, while for App participants were re-directed on installation, after answering questions on the importance, ability and their readiness for building new coping habits. Participants using the

---

132 The App also prioritised multiple coping suggestions based on what would be most helpful to do first (e.g. suggesting calm breathing before problem solving).
133 More sophisticated stage-based tailoring could not be developed due to time constraints.
paper workbook were referred to pages of motivational strategies, while App participants were automatically prompted with motivational strategies corresponding to their answers.

The informing function consisted of plain text to reinforce key messages introduced in the workshop about stress, resilience, ways of coping and behaviour change, in addition to the rationale for the homework. This text was on the front pages of the workbook and it was included in the first screens shown when participants registered to use the App. The guiding function was designed to provide clear step-by-step guidance on different coping and motivational activities. While the guidance for all activities was in plain text form in the workbook, some guided audio recordings were available in the App for activities including muscle relaxation, mindfulness and calm breathing. Finally the nudging function was designed to fulfil the role previously played by the coaching calls and the SMS reminders in prompting and reinforcing participants for doing the homework. While participants using the App were nudged to do the stress logging by daily push notifications, nudging was not available for participants using the workbook.

Program Changes Summary

In summary, study 3 piloted several changes to the resilience program to address poor feedback to the workshops 3 and 4, provide more tailoring to direct participants to helpful practice activities, and make the program more cost-effective and practical to deploy on a wider scale. These changes included updating the program to include a single workshop combined with a daily homework task involving performance aids, as opposed to the four workshops, two coaching calls and between-session homework tasks, that was included in study 2. A staged-based, inclusive approach was once again taken to promote training transfer, progress participants along the stages of change, and increase skills practice. In addition to making the program more affordable and easier to deploy, these changes were expected to enhance training transfer by:
• **Making practice more effective.** The tailoring and guiding functions in the performance aids, which made it easy for participants to work out what to practice and showed them how to practice, reduced the risk of the participants practising unhelpful activities. This was especially important given findings in study 2 that unguided practice in the unsupported period was associated with increased distress.

• **Making support more available.** By being available to support participants anytime, now or in the future, the performance aids provided the flexibility for participants to take their own journey of change when they are ready to change.

• **Prompting skills practice.** While the performance aids made it more convenient to practise the skills, the daily homework task provided a personally relevant focal activity that could easily be reinforced by email or App reminders. This offset the reduction in skills reinforcement from facilitators associated with the workshop consolidation and removal of mandatory coaching sessions.

• **Reducing resistance and resentment** from participants in early-stages of change, who were required to spend less time in workshops and on coaching calls, and who could redirect time towards stage appropriate activities and learn at their own pace.

• **Overcoming stigma-related barriers** to engagement and help-seeking, by providing opportunities for participants to explore their issues in private.

**Examining the role of Social Support**

The literature on stress management, resilience, and training transfer makes it very clear that social relations play an extensive role in both the development and maintenance of resilience (Burke & Hutchins, 2007; Cohen, 1992; Coultas et al., 2012; Masten, 2007; Prochaska et al., 2013). To fully understand the nature of resilience training we must examine the influence of social relations. They can be a source of stress, a coping resource (emotional and instrumental support), a resilience resource (attachment relationships) and they shape training transfer (transfer climate).
Defined as “resources perceived to be available from social networks”, social support was included in study 3 to account for the influence of the environment on training transfer. In addition to testing if the relationships found in studies 1 and 2 between the trainees’ coping and wellbeing levels generalised to a non-police population, study 3 also examined the relationships between these measures and social support.

Social support is known to buffer (or moderate) the effects of adversity (stressors) on stress symptoms (Cohen & Wills, 1985). The expected moderating effect of social support on the relationship between coping improvements and distress can be explained using the Transactional Model of Stress and Coping (Lazarus & Folkman, 1984). According to this model, perceptions that social support is available in the face of a potential stressor would influence both appraisals of whether that stressor is threatening (primary appraisal), and appraisals of one’s ability to cope with that stressor (secondary appraisal). To the extent that social support decreases threat appraisal and increases coping self-efficacy, it can be expected to reduce the likelihood and intensity of stress symptoms, thus buffering the impact of the stressor (Schwarzer & Knoll, 2007).

In addition to moderating the effects of coping improvements on distress, social support was also expected to influence the transfer climate for resilience training. With the transfer climate and level of social support expected to be more positive amongst the psychology students, interventions directly targeting social support were not included in study 3. However, two forms of social support were assessed, namely emotional and instrumental support. According to a refinement of the buffering hypothesis, the effectiveness of a form of social support at buffering the effects of a stressor depends on whether it is appropriate for coping with that stressor. (Cohen & McKay, 1984). In particular, instrumental support, in which a supporter assists with practical matters such as problem solving would be more applicable for addressing stressors requiring tangible
assistance, while emotional support, in which a supporter assists with emotion regulation could be expected to be more helpful for addressing negative effects on self esteem and ones’ sense of belonging.

*Study 3 design*

Study 3 was designed to comprehensively assess the impact of the revised program at three\(^{134}\) of the four levels of Kirkpatrick’s training effectiveness framework:

- **Level 1** (training reactions), including reactions to the workshops, homework, and performance aids
- **Level 3** (behaviour change), including practice amount and practice quality together with the ways in which participants progressed along the stages of change (what we refer to as “change pathways”),
- **Level 4** (wellbeing, coping and support impact), including changes in wellbeing (depression, stress, anxiety, resilience and life satisfaction and coping), changes in coping (unhelpful coping, experiential avoidance, higher mindfulness and progress towards values), and changes in social support (emotional and instrumental support)

Beyond the overall impact of the training, the study examined the influence of:

- training reactions (level 1) on the behaviour change variables (level 3),
- behaviour change variables (level 3), on the coping and wellbeing changes (level 4),
- practice group (App or Workbook) on levels 1, 3 and 4
- baseline levels of distress and social support on wellbeing changes (these variables were expected to *moderate* the impact of the training)

While these analyses were limited by our inability to include a control group due to the participants’ circumstances\(^{135}\), this limitation was offset by a more favourable transfer

---

\(^{134}\) Level 2 (retention) was not assessed due to time constraints

\(^{135}\) A control group could not be included as all participants needed to have similar experiences to achieve the secondary purpose of being educated about workplace wellbeing programs and workplace training.
climate which was expected to make the psychology students more likely to engage and complete the homework, and higher levels of baseline distress, which were expected to make it easier to detect symptom improvements during the intervention period.

*Expected impact of behaviour change variables on coping and wellbeing*

In order to examine the impact of moving along the stages of change each participant was allocated into one of three change pathways: 1) Those who progressed into the action stage of change between times 1 and 3 (Progress); 2) Those who remained in a pre-action stage at time 3 (NoProgress); and 3) those who were already in the action or maintenance stage of change at time 1 (AlreadyinAction). Consistent with the intended impact of taking action the impact of the training program on participants’ wellbeing and coping was expected to be different for participants in different change pathways. Compared to NoProgress participants, who were expected to report almost no coping and wellbeing benefits from the training, both Progress and AlreadyinAction participants were expected to report wellbeing and coping improvements, with AlreadyinAction participants expected to obtain the greatest benefits from the program, due to reinforcement and refinement of their existing practices.

*Expected impact of Practice amount and quality*

Extending on the findings from study 2, the practice analysis was a key focus of the current study. In Study 2 practice in the supported period was associated with reduced distress, while practice in the unsupported period was associated with increased distress. One potential explanation for this observation was that participants were practising skills that were inappropriate for their needs (for example, they may have engaged an action strategy to cope with an uncontrollable stressor). To address this risk, the training was updated to encourage greater levels of skills practice and facilitate the tailoring of practice activities and maximise coping fit.
Expected impact of practice group

In addition to obtaining qualitative feedback on the participants’ likes and dislikes of the performance aids, study 3 provided a unique opportunity to compare the effectiveness of Technology-enabled (App) and Traditional (workbook) performance aids. It was especially unique in being one of the first studies looking at an App as an adjunct to a universal resilience-training program. Given that some functions were only available in the App, including push notification reminders, guided audio exercises, and the ability to automatically generate coping suggestions, it was expected that participants using the workbook, who did not have access to this functionality, would practice less often and less effectively, and thus have poorer training transfer than participants using the App.

Study 3 Hypotheses

Based on the expectations above, the following hypotheses were made for study 3:

1. Enhanced wellbeing at time 1 (as indicated by lower levels of depression, stress, anxiety and higher levels of resilience and life satisfaction\(^\text{136}\)) will be associated with:
   - the targeted behavioural measures (lower unhelpful coping and experiential avoidance, and higher mindfulness and progress towards values)\(^\text{137}\),
   - higher levels of emotional and instrumental support
   - being in an action or maintenance stage of change for stress management at time 1

2. Participants will report high practice levels (amount and quality) and these will be associated with:
   - more favourable workshop helpfulness ratings;
   - higher “easy to use” ratings for the performance aids
   - more favourable homework ratings

\(^{136}\) Life satisfaction was added to explore whether the program had benefits beyond distress reduction. Compared to the training outcomes in study 2, limited overall benefits were expected because the program improvements were expected to be undermined by the level of interaction between the participants.

\(^{137}\) Consistent with the findings for the police recruits in studies 1 and 2
3. The training methods will facilitate progress along the stages of change, such that the majority of participants will:
   - leave the workshop (time 2) in a preparation, action or maintenance stage, and
   - finish the homework period (time 3) in an action or maintenance stage.

4. Participants who progress along the stages of change between times 1 and 3 will report:
   - higher practise levels in the homework period
   - greater perceived benefits from the homework

5. Compared to the Traditional Group, the Technology group will:
   - report more favourable homework and performance aid ratings including:
     - lower homework obstacles and difficulties
     - higher perceived benefits of the homework, “ease of use” ratings for the performance aids, levels of practice amount and quality, privacy concerns
   - be more likely to progress along the stages of change between time 1 and time 3

6. The training methods will facilitate wellbeing, behavioural and support improvements.

7. Wellbeing and behavioural improvements will be
   - greater for participants
     - with higher levels of baseline distress and social support
     - in the technology group as opposed to the traditional group
     - with high levels of practice amount and quality
     - more favourable homework ratings
   - shaped by change pathway
     - Participants in the Action pathways (Progress or AlreadyinAction) would obtain more benefits than NoProgress participants.
     - Of participants not in an action or maintenance stage at time 1, Progress participants will benefit more than NoProgress participants.

---

138 Like in study 2, while long-term improvements are expected in wellbeing, behavioural, and support measure, improvements during the homework period are only expected for those with higher levels of baseline distress.

139 The Progress and AlreadyinAction pathways are collectively known as the Action pathways.
- Of participants in the Action pathways, AlreadyinAction participants would obtain greater benefits than Progress participants

8. Participants will react favourably to the training methods
   - They will find the workshop helpful
   - They will find the performance aids “easy to use”
   - They will report favourable homework ratings including low ratings on homework obstacles and difficulties, favourable beliefs related to the homework, high motivational value of the prize, and low concerns about privacy

**Method**

**Participants**

Participants were university students enrolled in a third year subject in Organisational Psychology at the ANU in July 2013. The study was conducted as part of an educational exercise in which students learnt about wellbeing programs, workplace training and research. While 73 participants completed the pre-measures, only 60 were matched across time, including 12 males and 48 females, of average age 22.3 (SD = 3.98).

**Design**

A 2 (practice group: traditional or technologically enhanced) x 3 (time: pre-design was used to assess the impact of a training intervention and subsequent practice on mental health, coping and stage of change. As shown in Figure 10, all participants were required to complete three surveys and attend a 2-hour workshop. Participants completed the workshops and questionnaires in the tutorial groups assigned for their subject, with the maximum number of participants in any single workshop being 25. Questionnaires were completed online (using qualtrics software) in a computer room next to the tutorial room. At the end of the workshop, participants were randomly allocated into either a Technology or Traditional practice group and assigned a homework task to complete each day over a five-week period to practice the skills.
Figure 1. Study Timeline and participant completion

Demographics

Participants were asked to provide information about their gender, relationship status, prior exposure to stress management training and their smartphone type. Consistent with previous studies, to protect anonymity participants they provided information to generate a participant code that was then used to match participant responses across time. Survey responses were anonymous and participants were able to exclude their data from being used in research. Of the thirteen participants at time 1 who were removed from the final sample, seven were removed because they answered the anonymous code questions differently between the time-points and could not be matched over time, and 6 were removed because they excluded their data from the research. Participant demographics for the matched sample at time 1 are shown in Table 16.

<table>
<thead>
<tr>
<th>Table 16</th>
<th>Participant demographics at time 1 by practice group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Technology (N=33)</td>
</tr>
<tr>
<td>Gender</td>
<td>N</td>
</tr>
<tr>
<td>Female</td>
<td>26</td>
</tr>
<tr>
<td>Male</td>
<td>7</td>
</tr>
</tbody>
</table>

Although allocation to the practice groups was random, some participants who were initially allocated to the technology group had to be reallocated to the traditional group, as they did not have access to the technology.
Chi-squared analyses were conducted to identify differences on the demographic variables between the practice groups. The “Do you have a smartphone?” question was the only variable that was significantly associated with practice group, with the traditional group having significantly less participants with smartphones compared to the technology group $X^2(3, N=55) = 8.32, p = .040$. This was expected given that participants initially allocated to the technology group were reallocated to the traditional group if they didn’t have a smartphone.

**Wellbeing measures**

Measures were the same as study 2 except for the addition of the following:

- *The Berlin Social Support Scales (Schulz & Schwarzer, 2003):* Four items on this 8-item scale were used assess emotional support available to participants (e.g. offering reassurance or listening empathetically) with the other four items assessing instrumental support (e.g. assisting with a problem or offering resources).
Participants responded to items on a 4-point likert scale that ranges from “Rarely/Not at all” (1) to “Almost always” (4). Scores were calculated by summing the items, with possible scores on each subscale ranging from 4 to 16. Alpha coefficients for time 1 and Time 3 respectively on the emotional support subscale were .91 and .89, and for the instrumental support subscale they were .90 and .93.

- *Homework Rating Scale (Kazantzis, Deane, & Ronan, 2004; McDonald & Morgan, 2013):* Ten items from this scale were used to assess homework compliance and determinants of engagement. Participants responded to items on a 5-point likert scale that ranges from “Not at All” (0) to “Extremely” (4). Four items were summed to form a beliefs score, capturing the extent to which participants had positive thoughts related to the homework exercise. These included items related to clarity and specificity of the homework instructions, the homework rationale, and the match between the homework and the resilience goals. Three items were summed to form a homework benefits score, including items related to enjoyment, progress and mastery obtained from doing the homework. The remaining items were reported separately (quality, difficulty and obstacles). Alpha coefficients at Time 3 were .84 on the homework beliefs subscale, and .94 on the homework benefits subscale.

- *Stage of Change question (Evers et al., 2006; Velicer et al., 1998):* As in Study 2, this determined which stage of change for stress management practices participants were in at all three time-points. Participants chose from one of six response categories: not stressed, pre-contemplation, contemplation, preparation, action or maintenance.

*Data screening and Test assumptions*

The data was examined to ensure the assumptions of parametric tests were met. Any significant findings involving non-normally distributed variables were confirmed using non-parametric tests. To avoid confounding effects, participants who reported being in therapy or on psychoaffective medication (5) during the intervention were excluded from the analyses.
Workshop

As described in the introduction, participants attended one, two-hour workshop, which contained the key components of the resilience-training program in study 2. This included psycho-education about the stress and resilience, and coping skills training designed based on Acceptance and Commitment Therapy (ACT) to increase mindfulness, values progress and psychological flexibility (Bond & Bunce, 2000). Each workshop had the same content, delivered by the same two facilitators who were both trained in Acceptance and Commitment Therapy. An outline of the content in the workshop is provided in Table 17, with workshop slides contained in Appendix 4. In the post workshop questionnaire, participants rated how helpful the workshop had been in developing more effective ways to cope with stress. They were also asked to note what they had found most beneficial about the workshop, and were invited to make suggestions for improvement.

Table 17  Workshop Outline

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Study Orientation</td>
<td>• Program objectives and relevance to organisational psychology</td>
</tr>
<tr>
<td></td>
<td>• Your involvement – workshops, homework, anonymous questionnaires, research consent (Opt-out), questionnaire 1</td>
</tr>
<tr>
<td>2. Values and goals</td>
<td>• Values Definition</td>
</tr>
<tr>
<td></td>
<td>• Top 5 Values identification (Written exercise)</td>
</tr>
<tr>
<td></td>
<td>• Relationship between Values and Goals/Tasks, Values and outcomes, and Values and Stress</td>
</tr>
<tr>
<td>3. Stress psychoeducation</td>
<td>• Identify what might be stressful? (Written exercise)</td>
</tr>
<tr>
<td></td>
<td>• What is Stress/Stressors and Role of Appraisal and amygdala</td>
</tr>
<tr>
<td></td>
<td>(Transactional model of stress)</td>
</tr>
<tr>
<td></td>
<td>• Fight flight response symptoms, consequences if chronic</td>
</tr>
</tbody>
</table>

141 This was captured by the following item: “how helpful has today’s workshop been in helping you to develop more effective ways to cope with stress” and rated on 5 point scale from very unhelpful (1) to very helpful (5)
<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
</table>
| 4. Coping and Resilience   | • Your typical coping responses (Written exercise)  
• What is adaptive v maladaptive coping  
• Resilience definition  
• Building resilience through developing new coping habits  
• Coping flexibility steps (recover from fight flight response > deal with the stressor) |
| 5. Coping to address symptoms | • Overview of strategies  
• Mindfulness introduction and sultana exercise  
• Abdominal breathing introduction and exercise  
• Progressive muscle relaxation introduction and exercise  
• Role of exercise in counteracting the stress response  
• Emotional support – reaching out for support and discussion |
| 6. Coping to address the stressors | • Reflecting on stressors, external v internal  
• Our coping habit – control  
• Strategies to control our inner world  
• Does control work? > Different rules for internal v external  
• How control can lead to struggle  
• Acceptance as an alternative to control, difference from giving up, moving on from being right  
• Coping flexibility – selecting strategies that match level of control (No control – Acceptance > Full Control – Action)  
• Assessing control (exercise)  
• Acceptance of external and internal experiences  
• Overview of Acceptance techniques  
• Difference between Fusion v Defusion  
• Defusion exercise – Adding “I’m having the thought that” |
### Daily homework task - Skills Practice

The daily homework task involved the participants using a performance aid (either a smartphone App or paper workbook) to log their stress levels, their stressors and any coping strategies that they had practised. While the homework task was voluntary, to encourage participants to practise, they were advised that if they submitted their stress logs at the end of the five weeks they would be entered into a prize draw to win an iPad valued at 450 Australian Dollars. Homework completion was reinforced by facilitator emails related to the prize and through encouragement in the lectures and tutorials. Homework objections were proactively addressed in the workshop through education about the role of practice in building resilience and by exploring the pros and cons of the homework more generally.

At the end of the workshop the participants were separated into groups and provided separate stress-logging instructions and performance aids. *Technology group* participants were provided\(^{142}\) a smartphone App performance aid that:

- Sent reminders each day to participants to log their stress and stress level
- Prompted participants to enter details about stressors into a log and generated coping suggestions based on the stressors entered on the log (see Figure 11)

---

\(^{142}\) More detail about the difference between the performance aids was provided in the introduction
- Provided information about the coping strategies including access to audio recordings for mindfulness, abdominal breathing and muscle relaxation
- Enabled participants to review changes in stress levels and coping behaviours

![Figure 11. App Screens for Stress Log and Coping suggestions](image)

*Traditional group* participants were provided a paper workbook performance aid that:

- Had the same information about the coping strategies as the smartphone App
- Had forms for participants to log their stress each day over a five week period
- The stress log form prompted participants to enter details about what stressors they were facing before selecting coping strategies to practice based on the resilience model introduced in the workshop (see Figure 12)

![Figure 12. Workbook Stress and Coping Log example](image)
In the final questionnaire, participants estimated the number of days on which they logged their stress (for each of the five weeks). They also rated four items related to their homework experiences on a 7 point scale from strongly disagree (1) to strongly agree (7):

- One item captured how easy it had been to use their performance aid: “The support tool that I was given (App or workbook) was easy to use”,
- Two items were averaged to capture the motivational value of the prize: “I was motivated to practise the skills by the possibility of winning the prize” and “The prize was a motivator for me to practise the skills”,
- A fourth item captured privacy concerns: “I was concerned about the privacy of information logged in the support tool(s)”

Participants were also asked to describe what they liked most and least about their performance aid and App users were also asked to rate the importance of different features.

**Results**

*Data screening, Test assumptions and Overview*

To avoid confounding effects, five participants who reported being in therapy or on psychoaffective medication during the intervention were excluded from the analyses. The data was then examined to ensure the assumptions of parametric tests were met. Any significant findings involving non-normally distributed variables were confirmed using non-parametric tests. The results are organised into the following six sections:

1. Characteristics of the participants at time 1 on the main variables
   a. Descriptive statistics
   b. Correlations and regressions
2. Training method variables
   a. Descriptive statistics
b. Correlations with practice amount and quality

3. Progress along the stages of change

4. Effects of practice group
   a. On homework variables
   b. On progress along the stages of change

5. Change scores (between time 1 and time 3)
   a. Descriptive statistics and paired-sample t-tests
   b. Relationships with baseline distress and social support scores
   c. Effects of practice group
   d. Effects of homework variables
   e. Effects of change pathways

6. Training method qualitative feedback

1a. Characteristics of the participants at time 1

Table 18 displays the means and standard deviations of the main variables at time 1 and Figure 13 displays the mean scores for the Brief Cope subscales. Apart from four participants, most participants appeared to be psychologically healthy as described below:

- According to the DASS severity ratings (Lovibond & Lovibond, 1995), average scores on Depression and Anxiety were both in the normal (non-distressed) range with depression scores ranging from 0 to 18 and Anxiety scores ranging from 0 to 10.
- Average perceived stress scores were significantly higher than healthy adults of ages 18-29 years ($M = 14.2$, $SD = 6.2$), $t(54) = 3.54$, $p < .01$, (Cohen & Williamson, 1988).
- Average scores on the life satisfaction were comparable with the average scores for a sample of 244 US college students ($M = 23.7$, $SD = 6.4$) (Aiena, Baczwaski, Schulenberg, & Buchanan, 2015; Pavot & Diener, 1993).

---

143 Two participants indicated mild depression and one participant indicated moderate depression. Furthermore, one participant indicated mild anxiety and two participants indicated moderate anxiety.
• Average scores on the resilience scale were comparable with the average score for a sample of 1765 US college students (M = 74.88, SD = 17.05) (Aiena et al., 2015).

• Average mindfulness was comparable to a sample of 212 US college students: males (M = 32.71, SD=5.05); and women (M =30.51, SD=5.90)(Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007).

• Average experiential avoidance was significantly higher than a sample of 433 US undergraduate students (M=17.34, SD=4.37), t(54) = 3.08, p < .01 (Bond et al., 2011).

• The combined average of emotional and instrumental support scores (M = 27.35, SD = 5.32) was higher than a previous administration in depressed elderly patients (M = 21.95, SD = 8.21)(Patil et al., 2014).

• As expected, the majority of respondents to the stage of change question, 34 of 55 (or 62%) were in a non-action stage, split evenly between the pre-contemplation (n = 10), contemplation (n = 10) and preparation (n = 11) stages (see Figure 14)\(^\text{144}\).

Two sample t-test comparisons were conducted to test for differences on the main variables between the current and previous study. Compared to the police recruits who attended training in study 2, the students in the current study reported significantly higher scores for depression, t(26) = 3.88, p < .01, perceived stress, t(26) = 4.31, p < .01, unhelpful coping, t(26) = 3.66, p < .01, and experiential avoidance, t(26) = 4.93, p < .01, and lower scores for values progress, t(26) = 2.34, p = .013 than. No difference between the samples was found for anxiety, t(26) = .85, p = .201\(^\text{145}\).

\(^{144}\) In addition there were three participants who reported they don’t get stressed

\(^{145}\) Comparisons were not made for other variables as comparable measures were not included in study 2.
Table 18  
Correlations and descriptive statistics for Main Variables at time 1 (matched sample)  (N=55)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Depression</td>
<td>—</td>
<td>.40**</td>
<td>.48**</td>
<td>-.40**</td>
<td>-.45**</td>
<td>.58**</td>
<td>.10</td>
<td>.52**</td>
<td>-.42**</td>
<td>-.42**</td>
<td>-.47**</td>
</tr>
<tr>
<td>2</td>
<td>Anxiety</td>
<td>—</td>
<td>.39*</td>
<td>-.18</td>
<td>-.27*</td>
<td>.36**</td>
<td>.17</td>
<td>.30*</td>
<td>-.22</td>
<td>-.18</td>
<td>-.31*</td>
<td>-.25</td>
</tr>
<tr>
<td>3</td>
<td>Perceived Stress</td>
<td>—</td>
<td>-.42**</td>
<td>-.49**</td>
<td>.62**</td>
<td>.17</td>
<td>.70**</td>
<td>-.49**</td>
<td>-.47**</td>
<td>-.41**</td>
<td>-.33*</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Resilience</td>
<td>—</td>
<td>.70**</td>
<td>-.19</td>
<td>.33*</td>
<td>-.50**</td>
<td>.62**</td>
<td>.61**</td>
<td>.48**</td>
<td>.46**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Life Satisfaction</td>
<td>—</td>
<td>-.22</td>
<td>.17</td>
<td>-.56**</td>
<td>.57**</td>
<td>.67**</td>
<td>.60**</td>
<td>.60**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Unhelpful Coping</td>
<td>—</td>
<td>.60**</td>
<td>.47**</td>
<td>-.30*</td>
<td>-.25</td>
<td>-.16</td>
<td>-.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Helpful Coping</td>
<td>—</td>
<td>.00</td>
<td>.08</td>
<td>.18</td>
<td>.21</td>
<td>.19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Experiential Avoidance</td>
<td>—</td>
<td>-.71**</td>
<td>-.61**</td>
<td>-.50**</td>
<td>-.41**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Mindfulness</td>
<td>—</td>
<td>.67**</td>
<td>.28*</td>
<td>.23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Values Progress</td>
<td>—</td>
<td>.40**</td>
<td>.36**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Emotional Support</td>
<td>—</td>
<td>.93**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Instrumental Support</td>
<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>

<table>
<thead>
<tr>
<th>M</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.8</td>
<td>3.07</td>
<td>17.69</td>
<td>75.73</td>
<td>23.64</td>
<td>20.98</td>
<td>34.22</td>
<td>21.05</td>
<td>29.25</td>
<td>17.29</td>
<td>13.73</td>
<td>13.62</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SD</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.5</td>
<td>2.43</td>
<td>7.08</td>
<td>11.66</td>
<td>6.42</td>
<td>5.01</td>
<td>9.90</td>
<td>8.81</td>
<td>5.82</td>
<td>4.82</td>
<td>2.70</td>
<td>2.71</td>
</tr>
</tbody>
</table>

**p < .01, *p < .05; two-tailed
Figure 13. Means and 95% Confidence Intervals for Brief Cope Subscales at Time 1

1b. Relationships between the main variables at time 1 (Hypothesis 1)

Table 18 also shows the correlations between the variables at time 1. These were as expected and consistent with the findings of study 1 and 2, with higher scores on psychological distress measures (Depression, Anxiety, PSS), and lower scores on resilience and life satisfaction, all being strongly correlated to higher scores on behaviours discouraged by the intervention (unhelpful coping and experiential avoidance (AAQ-II)) and largely correlated to lower scores on behaviours promoted by the intervention (mindfulness and valued living). As expected, both emotional and instrumental support were negatively correlated to psychological distress (especially depression and PSS) and experiential avoidance, and positively correlated to life satisfaction, resilience and values progress.¹⁴⁶

Independent samples t-tests were conducted to test for differences between early and late stage participants on the coping, wellbeing and support variables at time 1.¹⁴⁷ While no significant differences were found, marginally significant differences were found on helpful coping, \( t(52) = -1.84, p = .072 \), and life satisfaction, \( t(52) = -1.65, p = .105 \). Participants in

¹⁴⁶ The only variables that were unrelated with the social support variables were helpful and unhelpful coping.
¹⁴⁷ The stage variable was dichotomized into Action and Maintenance vs All other stages.
action or maintenance stages of change reported higher scores on both variables (Life satisf. $M = 25.62$, $SD = 5.39$; helpful coping: $M = 37.38$, $SD = 8.99$), than those in other stages of change (Life satisfaction: $M = 22.41$, $SD = 6.77$; helpful coping: $M = 32.39$, $SD = 10.18$).

![Figure 14. Categorisation by stage at time 1](image)

**Figure 14. Categorisation by stage at time 1**

*Regressions on the wellbeing measures at time 1 (Hypothesis 1)*

Multiple regression analyses were conducted to examine the model at time 1, as shown in Table 19, to examine whether the proposed mechanisms of change of the behavioural (unhelpful coping, helpful coping, experiential avoidance, mindfulness and values progress) and environmental mechanisms of change (instrumental support, emotional support) were predictive of each wellbeing measure (depression, anxiety, perceived stress, life satisfaction and resilience). The backwards-stepwise\textsuperscript{148} method of regression was used, which involved modelling all potential predictors and removing redundant predictors until the most parsimonious model for each wellbeing variable was found. A subsequent analysis assessed the amount of variation explained by support mechanisms beyond that explained by the behavioural mechanisms (see $\Delta Adj. R^2$).

\textsuperscript{148} Backwards-stepwise regression was used in the absence of any theory offering suggestions regarding the relative contribution of the different process variables to the outcome measures in a police setting.
### Table 19  Multiple regression analyses predicting wellbeing measures at time 1

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Predictors</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>Adj. $R^2$</th>
<th>$Δ$ Adj. $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Helpful Coping</td>
<td>-.09</td>
<td>.05</td>
<td>-.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unhelpful Coping</td>
<td>.49**</td>
<td>.09</td>
<td>.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emotional Support</td>
<td>-.43*</td>
<td>.14</td>
<td>-.32</td>
<td></td>
<td>.08*</td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td>.48**</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>Unhelpful Coping</td>
<td>.16*</td>
<td>.06</td>
<td>.32</td>
<td></td>
<td>.05*</td>
</tr>
<tr>
<td></td>
<td>Emotional Support</td>
<td>-.24</td>
<td>.12</td>
<td>-.25</td>
<td></td>
<td>.15**</td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Stress</td>
<td>Unhelpful Coping</td>
<td>.52**</td>
<td>.14</td>
<td>.390</td>
<td></td>
<td>.53**</td>
</tr>
<tr>
<td></td>
<td>Exper. Avoidance</td>
<td>.40**</td>
<td>.09</td>
<td>.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>Mindfulness</td>
<td>.24</td>
<td>.12</td>
<td>.23</td>
<td></td>
<td>.58**</td>
</tr>
<tr>
<td></td>
<td>Values Progress</td>
<td>.46*</td>
<td>.16</td>
<td>.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Instrumental Support</td>
<td>.96**</td>
<td>.21</td>
<td>.43</td>
<td>.16**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td>.58**</td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>Unhelpful Coping</td>
<td>-.72*</td>
<td>.31</td>
<td>-.31</td>
<td></td>
<td>.05*</td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>.91**</td>
<td>.21</td>
<td>.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helpful Coping</td>
<td>.52**</td>
<td>.15</td>
<td>.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Instrumental Support</td>
<td>1.07*</td>
<td>.42</td>
<td>.25</td>
<td></td>
<td>.55**</td>
</tr>
<tr>
<td></td>
<td>Model Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. B values are unstandardized coefficients. *p < .05. **p < .001

In the first regression model, 48% of variance in depression scores, $F_{3,53} = 17.22, p<.001$, was explained by two significant predictor variables: higher unhelpful coping ($β = .70, p < .001$) and lower emotional support ($β = -.32, p = .004$), and an almost significant effect of lower helpful coping ($β = -.26, p = .057$).

In the second regression model, 15% of variation in anxiety scores, $F_{2,53} = 5.71, p=.006$, was explained by two significant predictor variables: lower emotional support ($β = -.25, p = .053$), and higher unhelpful coping ($β = .32, p = .016$).

In the third regression analysis, 53% of variance in perceived stress, $F_{2,53} = 30.36, p<.001$, was explained by two significant predictor variables: higher unhelpful coping ($β = .39, p = .001$), and higher experiential avoidance ($β = .48, p<.001$).
In the fourth regression analysis, 58% of variance in life satisfaction scores, $F_{3,53} = 25.04, p < .001$, was explained by two significant predictor variables: higher instrumental support ($\beta = .43, p < .001$) and higher values progress ($\beta = .35, p = .01$), and an almost significant effect of higher mindfulness ($\beta = .23, p = .06$).

In the fifth regression analysis, 55% of variance in resilience scores, $F_{4,53} = 16.97, p < .001$, was explained by four significant predictor variables: higher mindfulness ($\beta = .45, p < .001$), higher instrumental support ($\beta = .25, p = .014$), higher helpful coping ($\beta = .44, p = .001$), lower unhelpful coping ($\beta = -.31, p = .025$).

In summary, the predictors explained a large amount of variance in all wellbeing variables apart from anxiety, and each behavioural and support mechanism was a unique predictor of at least one wellbeing variable: Unhelpful coping uniquely predicted four of the five wellbeing variables; helpful coping, emotional support and instrumental support each uniquely predicted two outcome variables; and experiential avoidance, mindfulness and values progress each uniquely explained one outcome variable. While the support variables explained no additional variation for perceived stress, they explained significantly more variation for the other wellbeing measures, including an additional 5% of variance for anxiety and resilience, an additional 8% for depression, and an additional 15% for life satisfaction.

2a. Training method variables (Hypotheses 2 and 8)

Participants responded well to the training methods, with 80% of participants finding the workshop helpful or very helpful, up from 65% and 56% respectively for participants in workshops 1 and 2 of study 2 (Figure 15). In addition, a majority of participants (67%) agreed that the performance aids were easy to use (Figure 16).
Table 20 displays the means\(^\text{149}\) and standard deviations of the training variables at time 1. On average, participants reported practising the skills for 13 days over the five-week period, doing the homework moderately well, that the homework was only somewhat difficult, and that obstacles interfered moderately with the homework.

\(^{149}\) The possible range for these variables was as follows: HW Beliefs (0 to 16), HW Benefits (0 to 12), HW Obstacles, HW Difficulties and HW Quality (0 to 4), HW Practice Amount (0 to 35), Motivational Value, Privacy Concerns and Performance Aid Ease of Use (1 to 7), Workshop Rating (1 to 5)
Table 20.  *Means, SD and Correlations for Training Variables (N = 55)*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>—</td>
<td>-.25^</td>
<td>-.35**</td>
<td>.29*</td>
<td>.21</td>
<td>.12</td>
<td>.31*</td>
<td>-.11</td>
<td>.34*</td>
<td>.43**</td>
</tr>
<tr>
<td>2</td>
<td>—</td>
<td>—</td>
<td>.40**</td>
<td>-.06</td>
<td>-.03</td>
<td>-.02</td>
<td>-.07</td>
<td>.09</td>
<td>-.17</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>—</td>
<td>-.01</td>
<td>.13</td>
<td>.14</td>
<td>-.02</td>
<td>.28*</td>
<td>.12</td>
<td>-.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>6</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>7</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>8</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>9</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>10</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>10.62</td>
<td>1.93</td>
<td>0.91</td>
<td>1.51</td>
<td>13.29</td>
<td>3.58</td>
<td>3.95</td>
<td>2.85</td>
<td>3.98</td>
<td>5.09</td>
</tr>
<tr>
<td>SD</td>
<td>3.05</td>
<td>1.25</td>
<td>0.91</td>
<td>0.94</td>
<td>10.24</td>
<td>2.67</td>
<td>1.67</td>
<td>1.73</td>
<td>0.85</td>
<td>1.41</td>
</tr>
</tbody>
</table>

*^p < .05, **p < .01, two-tailed, ^p = .064, ^^p = .075*

Looking more closely at the homework data:

- 63% of participants practiced for six or more days over the homework period, while 13% did not practice at all (see Figure 17).
- The average number of days practiced increased between weeks 1 and 2 before dropping off over the following three weeks (see Figure 18).
- 31 participants (56%) reported doing the homework either moderately well or very well (see Figure 19).
- 21 participants (38%) reported the homework was either moderately or very beneficial (see Figure 20).
- 49 participants (89%) had moderately, very or extremely positive homework beliefs.
- 21 participants (38%) reported that obstacles interfered with the homework very or extremely much.
• 24 participants (44%) reported no difficulties at all with the homework, while 13 participants (24%) reported finding it somewhat difficult.
• 13 participants (24%) reported being concerned about information privacy
• 24 participants (44%) were motivated to practise the skills by the prize

Figure 17. Days practised by group (left – Technology, right – Traditional)

Figure 18. Average number of days practice per week, by group (N=55)

Figure 19. Practice Quality ratings by group
2b. Relationships between training variables and practice amount/quality (Hypoth. 2)

Table 20 also shows the correlations between practice amount and quality and the workshop, performance aid and homework variables. Consistent with expectations, significant relationships with both practice amount and quality were found with higher workshop ratings, higher performance aid ease of use ratings, strong perceived benefits of the homework and higher prize motivational value. Furthermore, the participants who completed higher quality homework also practiced more and had more positive beliefs about the homework. Inconsistent with expectations, privacy concerns, obstacles and difficulties were largely not related to practice amount or quality.

3. Progress along Stages of Change (Hypothesis 3)

Consistent with expectations, following the workshop the number of participants in the preparation, action or maintenance stages increased from 32 (58%) at time 1 (Figure 14) to 41 (75%), with preparation being the most common (n = 20) (See Figure 21). At the end of the homework period (time 3), the majority of participants (58%) were in an action or maintenance stage, with action being most common (n = 27) (Figure 22).
A categorical “change pathway” variable was created to examine the impact of alternative trajectories along the stages of change between times 1 and 3. Participants were allocated into three change pathways: those in an action or maintenance stage at time 1 (AlreadyinAction: 21 participants)$^{150}$, those who progressed from a pre-action stage into the action stage (Progressed: 18 participants), and those who remained in a pre-action stage (NoProgress: 15 participants). Consistent with the transtheoretical model of change (Prochaska & DiClemente, 1983), the proportion of participants who progressed into action was much higher for those in preparation at time 1 (82%), than for participants that were in contemplation (50%), precontemplation (44%) or not stressed (0%) (see Figure 23).

$^{150}$ The AlreadyinAction change pathway includes 7 participants who were in an action or maintenance category at Time 1 but stopped practising.
4. Effects of practice group on homework variables and stage of change (Hypoth. 5)

Independent samples t-tests were conducted to test for differences between the practice groups on the homework variables. A significant difference between the groups was found on quality, $t(35.11) = -2.65$, $p = .017$, and almost significant differences were found on homework benefits, $t(53)= -1.82$, $p = .075$, and performance aid ease of use, $t(34.86) = -1.73$, $p = .092$. Differences between the groups were not found on practice amount, homework difficulties, obstacles or privacy concerns. The differences were as expected:

- practice quality was higher for the technology group ($M = 1.80$, $SD = 0.61$), compared to the traditional group ($M = 1.16$, $SD = 1.14$) (see Figure 19),
- homework benefits were higher for the technology group ($M = 4.16$, $SD = 2.91$), compared to the traditional group ($M = 2.88$, $SD = 2.35$) (see Figure 20),
- performance aid ease of use was higher for the technology group ($M = 5.40$, $SD = 0.93$) than the workbook group ($M = 4.72$, $SD = 1.77$) (see Figure 16).

Although practice amount was not found to be different between the groups, there were significant differences in weeks 1 and 3. As shown in Figure 18, practice amount for the technology group increased between week 1 and 2 before dropping off in the remaining weeks of the intervention. While the traditional group recorded significantly higher levels of
practice in week 1\textsuperscript{151}, \( t(40.06) = 2.50, \ p = .017 \), the technology group recorded a (marginally) significantly higher level of practice in week 3, \( t(53) = -1.89, \ p = .064 \). In addition, more participants in the traditional group did not practice at all (6 out of 25, or 24\%) compared to the technology group (1 out of 30, or 3\%) (Figure 17).

Although a significant relationship between practice group and change pathway was not found, \( \chi^2 (2, \ N=54) = 3.041, \ p = .219 \), the percentage of overall participants in an action stage\textsuperscript{152} increased more for the technology group between time 2 and 3 (33\% to 67\%) than for the traditional group (46\% to 50\%) (Figure 24).

![Figure 24. Percentage of participants in the action and maintenance stages](image)

5a. Change Scores between time 1 and time 3 (Hypothesis 6)

Change scores were calculated for each of the main variables by subtracting time 1 scores from time 3 scores (see Descriptive statistics in Table 21)\textsuperscript{153}. One-sample t-tests were conducted to identify significant changes over the course the intervention as follows:

\textsuperscript{151} While the traditional group experienced no delay following training in receiving the booklet, the technology group had a four-day delay between attending the workshop and downloading the App (\( M = 4.33, \ SD = 2.62 \)).

\textsuperscript{152} For this analysis stage of change was dichotomized into either pre-action/stopped or action/maintenance.

\textsuperscript{153} Before calculating the change scores, case 22 was removed from the change score analyses due to incorrectly entered data. A comparison between the initial 73 participants and the final matched sample of 54 participants at time 1 revealed no significant differences in the average scores of any of the variables.
Wellbeing measures – while no significant changes were found, there was a marginally significant increase in life satisfaction \((M = 0.91, SD = 3.78), t(53) = 1.76, p = .084\), which may be informative given the small sample.

Behavioural measures - a significant increase was found in values progress \((M = 1.15, SD = 4.10), t(53) = 2.06, p = .045\), significant reduction in experiential avoidance \((M = -1.48, SD = 5.43), t(53) = -2.01, p = .05\), and a marginally significant reduction in unhelpful coping \((M = -1.04, SD = 4.23), t(53) = -1.80, p = .077\). No change was found in helpful coping and mindfulness.

Support measures – a significant increase was found in instrumental support \((M = 0.61, SD = 2.15), t(53) = 2.09, p = .041\).

5b. Relationships between change scores and baseline scores (Hypothesis 7)

Correlations were conducted to examine the relationships between the change scores and baseline levels of distress (i.e., perceived stress) and baseline social support (both instrumental and emotional support).

Baseline distress was found to relate to significant reductions in perceived stress, pearson’s \(r(54) = -.46, p < .001\). This shows that the program had a greater impact on participants with higher baseline distress.

No significant relationships were found between the change scores and baseline social support (neither emotion nor instrumental).

---

154 Looking at the unhelpful coping subscales, significant reductions were found in venting \((M = -0.58, SD = 1.51), t(54) = -2.855, p = .006\), and self blame \((M = -0.418, SD = 1.50), t(54) = -2.069, p = .043\).

155 A relationship with baseline distress was also found for venting, pearson’s \(r(55) = -.320, p = .017\).
Table 21 Means and Standard Deviations for the main variables at time 1 and time 3\textsuperscript{156}

<table>
<thead>
<tr>
<th>Variable</th>
<th>Technology (N = 30)</th>
<th>Traditional (N = 25)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Time 1</td>
<td>Time 3</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Depression</td>
<td>4.30</td>
<td>3.92</td>
</tr>
<tr>
<td>Anxiety</td>
<td>3.47</td>
<td>2.49</td>
</tr>
<tr>
<td>PSS</td>
<td>17.00</td>
<td>6.61</td>
</tr>
<tr>
<td>Resilience</td>
<td>76.20</td>
<td>11.54</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>23.67</td>
<td>5.70</td>
</tr>
<tr>
<td>Unhelpful Coping</td>
<td>21.30</td>
<td>5.72</td>
</tr>
<tr>
<td>Helpful Coping</td>
<td>35.37</td>
<td>9.52</td>
</tr>
<tr>
<td>Experiential Avoidance</td>
<td>20.53</td>
<td>8.50</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>28.97</td>
<td>5.73</td>
</tr>
<tr>
<td>Values Progress</td>
<td>18.23</td>
<td>4.45</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>14.00</td>
<td>2.48</td>
</tr>
<tr>
<td>Instrumental Support</td>
<td>13.90</td>
<td>2.51</td>
</tr>
</tbody>
</table>

\textsuperscript{156} Course related stressors for participants were much lower at time 1 (first tutorial of the semester) than time 3 (immediately before an assessment task)
5c. Effects of practice group on the change scores (Hypothesis 7)

Independent samples t-tests were conducted to test for effects of practice group on the change scores. Practice group did not have a significant effect on any of the change scores.

5d. Effects of homework variables on change scores (Hypothesis 7)

Correlations were conducted to examine the relationships between the homework variables and changes in the wellbeing and behaviour variables.

- No significant relationships were found between the change scores and practice amount, practice quality, homework beliefs or homework benefits
- Homework difficulty was found to relate to increases in anxiety, Pearson’s $r(54) = .28$, $p < .05$, increases in experiential avoidance, Pearson’s $r(54) = .36$, $p < .01$, and reductions in values progress, Pearson’s $r(54) = -.37$, $p < .05$,
- Homework obstacles was found to relate to reductions in life satisfaction, Pearson’s $r(54) = -.27$, $p < .05$

5e. Effects of change pathway on change scores (Hypothesis 7)

The change pathways refer to the three groups of participants identified based on movement in their stages of change between times 1 and 3 (AlreadyinAction, Progressed, and NoProgress). Before examining the impact of change pathway, we examined baseline differences between the change pathways on the wellbeing, behavioural and support variables using ANOVAs. These revealed a significant difference between change pathways on the time 1 (baseline) helpful coping, $F(2,53) = 4.30$, $p = .019$, and an almost significant difference on anxiety, $F(2,53) = 3.04$, $p = .056^{157}$ (see Figure 25). Post hoc comparisons using the Tukey HSD test revealed the following:

---

157 These results indicate that change pathway was significantly related to baseline scores on anxiety and helpful coping. Participants with higher baseline anxiety were more likely to be in the Progress pathway. Participants with higher baseline helpful coping were more likely to be in the AlreadyinAction pathway (See Figure 25).
Helpful Coping: Baseline scores for the NoProgress pathway were significantly less than scores for the AlreadyinAction pathway and almost significantly less than scores for the Progress pathway (p=.075). The difference between the helpful coping scores for the Progress and AlreadyinAction pathways was not significant.

Anxiety: Baseline scores for the NoProgress pathway were almost significantly less than scores for the Progress pathway (p=.060). No other differences were found between the change pathways on the anxiety scores.

Figure 25. Baseline scores for helpful coping and anxiety by change pathway

One-way between subjects ANOVAs were used to assess whether there was an overall effect of change pathway on change scores for the behavioural, wellbeing and support measures, practice (amount and quality), and the perceived benefits of the homework. To control for the impact of baseline differences, time 1 anxiety and helpful coping were entered as covariates in the analyses of the effects of change pathway on the change and homework scores\textsuperscript{158}. These analyses, which are summarised in Table 22, revealed that change pathway had significant effects on practice amount and changes in anxiety, perceived stress, resilience and values progress, and almost significant effects on changes in depression, experiential

\textsuperscript{158} Entering these variables as co-variates in the analyses allowed the effects of the intervention to be isolated. Covariates appearing in the model were evaluated at the following values: Time 1 Anxiety = 3.04, Time 1 Helpful Coping = 34.33. Only significant or almost significant effects are reported.
avoidance and mindfulness. Change pathway had no effect on changes in life satisfaction, helpful and unhelpful coping, nor the support variables. Figures 26, 27 and 28 show the mean scores by change pathway for the variables below.

**Table 22. Analysis of Covariance (ANCOVA) statistics for change and homework scores**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Change Pathway</th>
<th>Covariate: Time 1 Helpful Coping</th>
<th>Covariate: Time 1 Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F(2,49) Part. η2</td>
<td>F(1,49) Part. η2</td>
<td>F(1,49) Part. η2</td>
</tr>
<tr>
<td>Practice Amount</td>
<td>7.16** .23</td>
<td>3.84^ .07</td>
<td>7.00* .12</td>
</tr>
<tr>
<td>Depression</td>
<td>2.39^ .09</td>
<td>2.86^ .06</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>4.04* .14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Stress</td>
<td>3.95* .14</td>
<td>6.77* .12</td>
<td></td>
</tr>
<tr>
<td>Experiential Avoidance</td>
<td>2.42^ .09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>6.05** .20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Values Progress</td>
<td>4.10* .14</td>
<td>3.84^ .07</td>
<td></td>
</tr>
<tr>
<td>Mindfulness</td>
<td>2.09^ .08</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * p<.05, ** p<.01, ^ p<.051, ^^ p<.134 All measures are change scores, except practice amount.

**Figure 26. Homework variables by Change Pathway**
5d. Effects of practice group on the change scores

Independent samples t-tests were conducted to test for effects of practice group on the change scores. Practice group did not have a significant effect on any of the change scores.
6. Qualitative Feedback on the Training Methods

The following feedback is presented to elaborate on the positive workshop helpfulness ratings and the strong “ease of use” ratings for the performance aid.

*Workshop comments*

- Many participants reported finding the informative nature of the workshop beneficial, including learning about stress and resilience, being introduced to a broad range of coping strategies, and learning when to use different strategies.
- Participants also appreciated the practical nature of the workshop, including opportunities to pause and reflect on their experiences, and opportunities to practice techniques such as defusion, mindfulness and abdominal breathing.
- The impact of these experiences on self-awareness was clearly illustrated in the following comment: “I could relate strongly to the workshop. It made me think and realise many things about myself.”

*Suggestions to improve future workshops*

- Many participants mentioned that the length of the workshop made it hard to concentrate. They suggested making it shorter, including more breaks, making the workshop more interactive, and including more practical exercises.
- A few participants suggested removing things that they already knew.
- Suggestions to include less theory by some participants were countered by others who requested more empirical evidence and studies.

*What do you most like about the App*

- Many participants reported finding the App quick and easy to use, convenient, accessible and simple.
- Participants also reported finding the variety of ways of coping very helpful.
Specific features liked included the reminder function, the audio recordings, and the generation of coping suggestions based on the type of stress logged.

What do you least like about the App

- Most common frustration was with the stressor selection options as reflected in the following comment “(the) stressors that did not usually match what I was feeling stressed about, and so often would have to find one that was close and use that without mentioning all the other stresses I felt.”
- The next most source of frustration was with the technology as noted by the following comments “it was clunky and froze a lot, there were some crashes in the beginning.” “The reminders stopped working a couple of weeks in and I totally forgot about the app as a result.” “It could be slow at times” “Couldn't log stress without selecting at least one symptom, even when no symptoms were present”
- Some found it a bit confusing “It wasn’t clear to me what I had to do”
- Some didn’t like being asked to log stress when they were not stressed, especially when they were busy or they are not stressed “It was bothersome on days where nothing was stressful” “I didn't like being reminded of the possibility of being stressed when I wasn't”
- Some didn’t like the coping guidance that were presented “gave me too many coping options so I felt like there was too much to do” “some of the advice was repetitive and vague” “I would rather browse than be directed”
- Some didn’t like having to practice the skills “I didn’t like having to listen and spend time on some strategies”

What would you most like to see improved in the App

- Most attention was on the stress log, with requests for more flexibility in logging, including the ability to add new stressors, the ability to write a sentence or two about
experiences, the ability to log no stress, the ability to review past logs from a calendar, the ability to edit past logs and better graphs showing progress and change

- Some participants requested less strict guidance on how to use the App, only use when needed, or every day or two
- Others requested clearer instructions on what to do, easier navigation, making it a bit more fun, animations and games
- Several participants highlighted bug fixing including making the reminders reliable
- Some participants suggested adding related courses to the App

Positive feedback on the workbook

- Participants reported finding it easy to read, understand and use the workbook
- Many commented that it was helpful to reflect on stressors that they experience and how they cope: "It was nice to have to think about what I do." “I keep a diary, and writing out my thoughts is the best way for me to overcome stress. Writing things down with pen and paper is a calming exercise and I found it very useful.”
- They also appreciated the diverse range of options given for coping: “It opened my eyes to a few coping mechanisms I could use in the future, and made me realise what I am already doing well”

Negative feedback on the workbook

- Several participants reported finding logging to be a tedious and time-consuming task, especially if they were not stressed "I did not feel that I needed it at all"
- Several commented that were too busy to log regularly and one person suggesting it would have been better as a weekly task
- Several people reported finding the task itself stressful: "It made me think too much about my stress, rather than encouraging coping" "I do not like focusing on my stress" and "I found it more distressing having to do an extra task"
Many reported forgetting to log: "It was quite hard for me to remember among everything else going on in life."

Some reported misplacing the book, saying "if I had a website online I could have used that would have been more convenient."

**Stress Management App Feature Importance**

Figure 29 shows responses from App users on the importance of different App features. The most important features on average were: “It suggests coping strategies based on stressors that I enter”; “It provides me information about stress and stress management”; “It allows me to track changes in my stress levels and coping behaviours”; and “It reminds me to practise habits that reduce my vulnerability to stress”. The two least important features related to connecting with others: “I can share my progress”; and “I can chat anonymously”.

![Figure 29. Means and 95% Confidence Intervals for App Feature ratings](image)
Discussion

The purpose of this study was to investigate the impact of a resilience-training program designed for the NSW police on a different cohort. Building on the findings of the NSW Police studies, study 3 evaluated the effectiveness of a resilience program with ANU psychology students. Consistent with study 2, the current study took a stage-based, inclusive approach that promoted training transfer, targeting the same mechanisms of change. The main changes to the program included the consolidation of four workshops into one and the replacement of the coaching calls with performance aids that tailored the homework to each participant’s needs. Participants were assigned to one of two practice groups, one that used a smartphone App, and the other a paper workbook.

In addition to increasing affordability, the performance aids aimed to make the program more effective, provide greater support, prompt increased practice, overcome stigma barriers, and reduce resentment from early stage participants. While the potential benefits of performance aids were attractive, because the removal of the coaching calls and workshop consolidation brought a reduced level of interaction and associated reinforcement, there was a risk that the performance aids would not be used, and that practice levels would drop off. To minimise this risk, a daily homework task was set involving the performance aids. This task was relevant to all participants and provided a focus for email reinforcement.

While most of the psychology students were psychologically healthy, consistent with expectations, they reported higher levels of distress than the police recruits in study 2. They also reported higher scores for unhelpful coping, experiential avoidance and lower scores on values progress. In addition to assessing progress along the stages of change and changes in the mental health, coping and support measures over the intervention period, the study also examined whether these changes were related to baseline distress, practice group

---

159 With higher levels of distress, it was expected to be easier to detect changes than study 2. Note: mindfulness, resilience, life sat could not be reported as they used different measures in time 2 than 3.
(smartphone App or paper workbook), and practice amount. To capture increased variation and address poor inter-rater reliability in the practice measure, practice amount was precisely defined to correspond with the number of days that the participants completed the homework task. The following paragraphs review the study hypotheses, before examining the impact on training transfer of the program changes.

Consistent with hypothesis 1 and the findings for the police recruits in studies 1 and 2, better mental health (as indicated by lower levels of depression, stress, anxiety and higher levels of resilience and life satisfaction), was associated with the targeted behavioural mechanisms (lower levels of unhelpful coping, experiential avoidance, and higher levels of values progress and mindfulness). Better mental health was also related to higher levels of emotional and instrumental support. Furthermore, participants in later stages of change reported marginally significantly higher levels of life satisfaction and helpful coping at time 1 when compared to participants in earlier stages of change.

The regression analyses demonstrated that when combined, the behavioural and support mechanisms explained a large share of variation in all mental health measures (apart from anxiety\textsuperscript{160}), explaining between 52% and 60% of variation in each outcome measure. Between study 2 and 3 the share of variation explained by the predictors increased from 38% to 48% for depression and from 34% to 53% for perceived stress. While much of the difference for depression can be explained by the addition of emotional support as a predictor, the difference for perceived stress reveals that experiential avoidance and unhelpful coping made a larger contribution to stress for the psychology students compared to the police recruits. When combined with the other predictors, each mechanism remained a unique predictor of at least one mental health measure each, with unhelpful coping being a

\textsuperscript{160} The share of variation in anxiety dropped from 37% to 16%, revealing that important predictors of anxiety amongst the psychology students were not included in the study.
unique predictor of four of the five mental health measures\textsuperscript{161}. Hence, while reducing unhelpful coping was the most beneficial target of change generally, the continued focus on all predictors was justified by their unique contributions to the outcome measures.

\textit{Hypotheses 2} related to the amount and quality of homework practice. While few practised every day during the homework period, the proportion of participants that practised for six or more days was high (63%), comparing favourably with the proportion who practised sometimes or fairly often in the supported period of study 2 (56\%)\textsuperscript{162}, and consistent with the number of participants who reported doing the homework well or very well (56\%). Furthermore, the average number of days per week stayed relatively constant over the five weeks (2 to 3 days). As expected, significant moderate to strong correlations were found between higher practice amount and quality and key inputs to the homework, namely the workshop and performance aid ratings, in addition to key outcomes of homework, namely perceived homework benefits and incentive value. However, inconsistent with expectations practice amount and quality only had a small correlation with homework beliefs, and no correlation with homework obstacles, difficulties or privacy concerns. Although the presence of obstacles did not stop participants from practising in the current study, given that this may have been different without the incentive, further investigation is warranted into understanding and addressing the obstacles. These results also highlight the importance of maximising the helpfulness of the workshop, making the performance aid as easy to use as possible, and maximising and promoting the homework benefits.

\textit{Hypotheses 3, 4, 5 and 7} relate to the progress along the stages of change. Being in a later stage of change is a necessary condition for training to be effective and for training transfer (Coutlas et al., 2012). Consistent with expectations, the workshop succeeded at moving participants from pre-contemplation and contemplation into the preparation stage of

\textsuperscript{161} Unlike study 2, experiential avoidance was not a unique predictor of depression or anxiety.

\textsuperscript{162} Note: The specific measure of practise used in study 3 was more specific than study 2.
change, while the homework moved participants into the action stage of change. Between time 1 and 2, the number of participants in the preparation, action or maintenance phase increased by 17%. Progress along the stages continued over the homework phase, with the majority of participants (58%) being in an action or maintenance phase on completion. Consistent with the transtheoretical model of change (Prochaska & DiClemente, 1983), the proportion of participants who progressed into action was higher for those in preparation at time 1, than for participants that were in contemplation, precontemplation, or not stressed.

Hypothesis 6 examined the overall impact of the intervention, with improvements expected over the long term in the wellbeing, behavioural and support measures. While the participants in study 3 were only followed over a short time period, it was encouraging to find significant improvements (difference between time 1 and 3) on the behavioural measures, including an increase in values progress and a reduction in experiential avoidance, and an almost significant reduction was found in unhelpful coping\(^{163}\). Significant changes were not found on the wellbeing and support measures. However, almost significant increases were found in life satisfaction and instrumental support. While the changes identified were all consistent with the expectations, they should be interpreted with caution, as unlike the first two studies, there was no control group, so it is possible that they could be related to something other than the intervention.

There was also evidence that the type of practice group – pen-and-paper or app – had an impact on the homework variables and stage of change (Hypothesis 5 and 7). Practice quality, homework benefits and ease of use ratings were higher in the technology group compared to the traditional group. There was also some evidence that skills practice increased in the technology group in the early stages and that there was less practice in the traditional group. Furthermore, participants in the technology group were more likely to

\(^{163}\) Related to this were significant reductions in venting and self blame.
progress into the action stage than participants in the traditional group. Lastly, practice group was not found to have significant effects on any of the change scores.

One reason to explore trainee characteristics is to better understand when and for whom such training may be impactful. When looking at the trainee characteristics there are a number of findings that baseline distress, stage of change, coping and social support impact on responses to the training program and outcome variables. These findings shed light on when training is likely to be most effective and barriers to training success.

Consistent with hypothesis 7 and the findings of Flaxman and Bond (2010b), the effect of the intervention was greater for participants with higher baseline distress, including greater reductions in perceived stress. Given this finding and the fact that most participants had low baseline distress levels, it is not surprising that significant changes were not found overall on the distress measures between time 1 and 3. This is especially the case given the fact that any improvements in distress related to the training would have been offset during this time-period by increasing study pressures.

Furthermore, participants’ baseline scores on helpful coping and anxiety influenced change pathways. Participants with higher levels of anxiety at time 1 were more likely to end up in the Progress pathway, while those with higher levels of helpful coping were more likely to end up in the AlreadyinAction pathway. These same change pathways had a significant impact on the well-being change scores, in particular anxiety and resilience. In general, the analysis of change pathway impacts revealed that the biggest improvements in wellbeing over the homework period were mainly found for participants who were already in action for stress management at the start of training, followed by participants who moved into progress. Importantly, distress and the change pathway impacted on practice quality and amount. Although these analyses are more exploratory they focus attention on the trainee
characteristics and the need for personalised training that starts where the trainee is in relation to distress and change (e.g., Bond & Bunce, 2003; Coultas et al. 2012).

After conducting two previous training programs and incorporating changes in study 3 based on previous feedback, there is evidence of participants having a positive response. Consistent with hypothesis 8 and the comments, the workshop was received well and more positively than the workshops in study 2\textsuperscript{164}, and the vast majority of participants reported that their performance aid was easy to use, had positive beliefs about the homework and had minimal difficulties with the homework\textsuperscript{165}.

While many studies have looked at the use of web-based psychological interventions, few studies have been conducted incorporating Apps, especially Apps used as an adjunct to therapy or training. Only a small number of participants were concerned about privacy and the prize was a key motivator for many participants to do the homework. Offsetting these positive reactions were the large number of participants who reported that obstacles interfered with them doing the homework. The program was also adapted so it could be more efficiently implemented with replacing the coaching calls with performance aids and consolidating the workshops into a single session. These initiatives also reduced the level of interaction between the participants and facilitators, and the corresponding level of reinforcement for skills practice. With limited reinforcement, there was a possibility that the impact of the training would be diminished.

Limitations and future directions

There were several limitations impacting the study. First, significant findings should be interpreted with consideration of the possibility of family-wise error, as the probability of making one or more type I errors (significant findings that are actually false), would have been inflated by the large number of statistical tests that were performed. Secondly, the lack

\textsuperscript{164}80\% of participants found the workshop helpful in study 3, a higher proportion of participants than any of the workshops in study 2 (workshop 1 – 65\%, 2 – 56\%, 3 - 39\% and 4 – 31\%).

\textsuperscript{165}Including 44\% who reported no difficulties at all
of a control group meant we could not isolate the effect of the intervention from the effect of
confounding factors such as the weather. Future research should ideally have three groups:
no training, training only, training plus practice. There are also issues with small cell sizes
especially when wanting to categorise trainees on the basis of pre-training characteristics
such as change pathway. A number of exploratory analyses have been conducted concerning
trainee characteristics, which have added a degree of complexity to the analyses. Better
research designs are required to isolate impacts including larger sample, trials with
comparison groups and (e.g., compare coaching with no coaching) and interviews with
participants.

The nature of the sample is also an issue. The pattern of findings suggests greater
change across time (greater reductions in perceived stress, experiential avoidance and
unhelpful coping) for those participants with higher baseline distress. The sample though
comprised students with low levels of distress, with several variables violating the
assumptions of parametric tests. These patterns make it difficult to systematically assess
the impact of the training.

Given the role of the practice method in explaining practice quality and stages of
change towards the action stage, there is more work that needs to be done exploring the use
of Apps as a training transfer method. The performance aids, including both the App and
workbook replaced the “coaching call” that was included in Study 2 so as to make the
training more efficient and cost-effective. In future work the App, workbook and coaching
call can be compared as well as exploring factors that impact on technology adoption.

Conclusions

This study builds on studies 1 and 2 and particularly focuses on homework, stages of
change and practice methods and the role of traditional and new technology. There are some
promising findings with participant improvements across time on behavioural measures,

166 While we acknowledge that the violation of assumptions is a limitation of the interpretation of the results, we
believe that the analyses that we conducted were in general robust to assumption violations.
including an increase in values progress and a reduction in experiential avoidance, and an almost significant reduction was found in unhelpful coping. With respect to practice method there were limited impacts on well-being, but technology did facilitate practice quality, homework and progressed participants to the action stage of change. There was also evidence that participants pre-training change pathway moderated the impact of the training program. What this means is that in an iterative way affecting stages of change could be an important first step in facilitating training success.
CHAPTER 6: Concluding Chapter

This chapter provides an overview of the research program, which was initiated by the NSWPF, and centred on the following research question: “Can a brief training course be effective at enhancing the long-term resilience of police recruits and prevent future psychological injuries?”, together with related questions: “What is the most appropriate resilience training design?” and “What factors are related to better training outcomes?”. On the following pages, we briefly review the theoretical framework for the research and the training design, before revisiting the key findings and implications of the three studies:

- 2011 pilot study with NSW Police Recruits, including 33 training participants and 40 control participants (voluntary participation, voluntary homework)

- 2012/2013 main study with NSW Police Recruits, including 27 training participants and 98 control participants (compulsory attendance and voluntary homework)

- 2013 study with ANU Psychology Students, including 60 participants (compulsory attendance, voluntary but incentivised homework)

Theoretical framework

The program was informed by an understanding of mechanisms that shape the impact of stressors together with the literature on stress interventions. In chapter 2, we drew on literature from multiple fields to provide the theoretical justification for this research and the rationale for the design of our resilience-training program. While it is clear that chronic activation of the stress response is a large problem for employees in many organisations, police officers are at particular risk of harm due to regular exposure to traumatic stressors on the job. Fortunately, the impact of stressors can be reduced by processes of cognitive appraisal and coping, which influence activation of threat, drive and contentment emotion regulation systems. Coping is effective at minimising harm when there is a fit between the strategy and the nature of the stressor, with problem-focused coping found to be more effective for controllable stressors and emotion-focused coping for uncontrollable stressors.
Although chronic stress is a problem for police organisations in general, the impact of stressors varies substantially between officers, with resilience, the process of positive adaptation to stressors, being the most common trajectory for police officers. The likelihood of resilience is shaped by individual differences in risk and protective mechanisms that shape both the activation of the stress response, and coping and emotion regulation skills. While risk mechanisms directly increase chronic stress, protective mechanisms foster resilience by preventing individuals from being harmed by risk mechanisms.

Risk and protective mechanisms operate across multiple levels (biology, psychology and environment), with distal factors (from early childhood) shaping proximal factors. We highlighted key factors that influence stressor exposure and reactivity, that are proximal and transdiagnostic (related to multiple forms of pathology). Biological risk factors included sensation seeking, sensory processing sensitivity, and brain deficits related to emotion dysregulation. Environmental risk factors included factors that reduce social status and perceptions of controllability, and factors related to emotional neglect. Psychological risk factors included neuroticism (reported to be the best predictor of police distress), maladaptive cognitive schemas, insecure attachment styles, and dysfunctional cognitive-behavioural processes such as cognitive fusion, experiential avoidance (socialised during police training) and perseverative cognition (especially negative self referential processing). Protective mechanisms, which cross over multiple levels, included: problem solving, self-regulation, agency, meaning making, attachment relationships/social support and cultural beliefs/rituals.

Organisations can address the problem of chronic stress through three types of interventions: primary (prevents chronic stress by targeting organisational factors), secondary (prevents chronic stress, by targeting personal factors), and tertiary (treatment for employees who are already experiencing chronic stress). While we recommend an integrated approach, our research focused on resilience training, which is a secondary intervention. Resilience training is a form of Stress Management Training (SMT), which equips employees with
coping skills that can help them to “bounce back from adversity” and be resilient. Our program was universal (designed to be provided to all officers) and preventative (delivered with the intention of preventing future injuries), and it targeted transdiagnostic factors that could prevent the development of a range of problems (especially PTSD and depression).

While there are many studies demonstrating the effectiveness of CBT-based SMTs, there are few published trials with police. The present research addressed this gap by trialling a resilience-training SMT that is well suited theoretically to building resilience in police officers, especially officers high in the key risk mechanisms of neuroticism and experiential avoidance (EA). EA describes the extent to which individuals: 1) are unwilling to stay in contact with painful thoughts, memories and emotions (private experiences); and 2) take steps to control, alter or avoid these experiences (Hayes et al., 1999). To address the issue of experiential avoidance, our resilience training program incorporated content from Acceptance and Commitment Therapy (ACT), a newer form of CBT, which encourages acceptance and valued action (Bilich, 2009; Bond & Bunce, 2000).

Adapted from ACT-Based SMTs developed by Flaxman, Bond (2006) and Bilich (2009), the program incorporated a mix of Workshops, Homework exercises, Coaching Calls and Performance Aids. In all three studies, participants were introduced to a broad range of coping skills that could address the full range of stress symptoms and stressors (both work and personal) experienced by police, with special attention paid to skills related to the protective mechanisms identified by Masten and Wright (2009). They were also trained to recognise and appraise stressor control, and to select and activate coping strategies that fit the stressor controllability,. The program design was updated between the studies to address issues that were identified, and to test out different hypotheses.
**Study 1 - 2011 pilot study with NSW Police Recruits**

In Study 1 we piloted our resilience-training program with NSW Police recruits.

**Study 1 Hypotheses**

- Measures of mental health and resilience were expected to relate to the proposed mechanisms of change (higher scores on mindfulness, valued living and positive affect\(^{167}\), and lower scores on experiential avoidance and maladaptive/unhelpful coping).

- Training was expected to lead to greater improvements across time on mental health outcome measures (general health, depression, anxiety and stress) compared to the control condition.

- Training was expected to lead to greater improvements across time on proposed mechanisms of change (mindfulness, valued living, positive affect, psychological flexibility/experiential avoidance) compared to the control condition.

- Changes in the proposed mechanisms of change across time were expected to mediate changes in the outcome measures.

**Study 1 Findings**

Consistent with our hypotheses we found that: (a) better mental health and resilience was associated with the proposed mechanisms of change (higher scores on valued living, mindfulness, and positive affect, and lower scores on experiential avoidance and unhelpful coping), and (b) the mechanisms of change did account for a large amount of variance in the mental health outcome measures. These findings indicated that in line with the existing literature the intervention was directed at important factors that serve to build resilience.

While no significant findings were evident when comparing the control and intervention group across time, it was not possible to make conclusions regarding hypotheses two to four.

---

\(^{167}\) Positive affect was also examined to confirm its relationship to resilience (Fredrickson et al., 2003; Ong et al., 2006).
due to: 1) The small number of participants reducing the power of the tests; 2) Only half the program was delivered with high levels of attrition, and 3) The possibility of a floor effect in which symptomology changes are not found when participants are well.

A focus group conducted six months after the training revealed several issues with the training implementation. First, participants chose to drop out of the training to study for exams due to the combination of voluntary participation and competing demands, together with poor scheduling of workshops (during exam period) and stigma related to stress. Secondly, participants reported low levels of practice and poor knowledge retention. To address these issues, the following changes were made to the program for study 2:

- Training attendance and survey completion was made a compulsory part of broader police training to reduce the impact of stigma and competing priorities.
- The NSW Police were asked to remove impediments to attending the workshops, including not scheduling workshops during exam study periods.
- The first 2 workshops were delivered within a short time period (3 weeks) to maximise and reinforce learning and clarify any misunderstanding
- Values and goals clarification were moved from the second to the first workshop to make it more immediately relevant and beneficial to non-stressed participants
- Workshops 3 and 4 were scheduled before and after students’ placement and the experiences were used to demonstrate the relevance of the program and encourage skills application
- Phone coaching calls were added to check in individually with students to address issues that they may not be willing to discuss in the groups, and to motivate students to practise the skills
- The program content was revised with advice from experienced NSWPF officers, to remove jargon, and make it simpler, more interactive and more relevant to policing
• Experienced and uniformed police officers were invited to attend the workshops, to share their experiences of stress and to highlight the relevance of the program

• The literature on training effectiveness was reviewed to identify any other changes that could maximise the effectiveness of the revised program

**Study 2 - 2012/2013 main study with NSW Police Recruits**

Study 2 built on the findings of study 1, by re-designing and then evaluating the effectiveness of this revised version of the resilience-training program with a group of NSW Police recruits. We began with a review of the literature on training effectiveness framed around “Kirkpatrick’s four levels of training evaluation (participant reactions, retention, behaviour change, workplace impact) (Kirkpatrick, 1975), and the concept of training transfer (which refers to the process by which knowledge and skills learnt in training is applied, generalised on the job, and maintained over time). We noted that the high levels of attrition, poor engagement and poor knowledge retention found in study 1 demonstrated that our resilience-training program had a training transfer problem that needed to be addressed. To inform our approach to addressing the training transfer problem, we reviewed the antecedents of training transfer (Baldwin et al., 2009; Burke & Hutchins, 2007, 2008; Grossman & Salas, 2011), noting factors in three domains: the **trainee** (including motivation, self-efficacy and perceived usefulness of the skills); the **environment** (both during training and post-training); and the training **design** (including goal clarity, content relevance and opportunities to practice).

Based on this review, combined with the study 1 focus group feedback, several changes were made to the training program in study 2. While high attrition was addressed by making training compulsory for all participants in the training cohort, poor training transfer was addressed by making changes across the three domains (trainee characteristics, organizational factors and training design). This included adding, updating and rearranging content to make it more relevant and engaging for police recruits, getting experienced
officers to talk about their experience of stress, and setting homework activities to encourage practice outside of workshops.

Given the program was both universal and prevention-oriented, training motivation was particularly important to address, as participants would begin the training with different motivations for training (and different stage of change). The program needed to be able to engage participants with different levels of motivation it was to ensure all participants left with skills, knowledge and attitudes that can keep them healthy in the future, when they experience stressors on the job. This challenge was addressed in study 2 through tailoring change processes based on each participant’s stage of change. While compulsory workshops were used to ensure all participants were exposed to change processes of relevance to early stages of change, compulsory, stage-matched coaching and homework were used for tailoring and reinforcing progress along the stages.

As in study 1, we could not assess the full impact of the training in study 2, because the participants were only assessed over a few months at the academy. However, with effective training transfer, we expected that resilience training would lead to significant benefits for participants in the future, if and when they become distressed. In the meantime, stage of change was examined as a leading indicator of the future impact of the resilience training, based on the assumption that healthy participants are more likely to obtain future benefits if they are in a stage of action for effective stress management.

Study 2 Expectations and Hypotheses

Having made the changes to reduce attrition and enhance training transfer, we expected improvements in the effectiveness of the resilience-training program compared to study 1 at all four levels of Kirkpatrick’s training evaluation framework. While significant improvements in mental health and coping during the training period were not expected for participants who were not distressed at time 1 (due to floor effects), for those who were
distressed, relative improvements in mental health and coping over the training period were expected for the training group compared to the control group, with the impact of the training expected to be greater for participants who report higher practice levels. Based on these expectations, we made the following hypotheses for study 2:

1. Consistent with the findings of study 1, better mental health (as indicated by lower levels of depression, stress, anxiety, PSS, PTSD and GHQ and higher levels of resilience and positive affect) will be associated with the targeted coping mechanisms (lower levels of unhelpful coping and experiential avoidance, and higher levels of mindfulness and progress towards values).

2. Baseline distress will moderate the impact of training on mental health and coping.

3. Participation in training will lead to progress along the stages of change.

4. Stages of change will be related to practice levels.

5. Practice will lead to improvements in mental health outcomes and coping.

**Study 2 Findings**

Consistent with study 1 and hypothesis 1, the better mental health variables at time 1 were found to be significantly associated with the targeted mechanisms of change. The regression analyses demonstrated that when combined, these mechanisms explained a large share of variance in the different mental health measures. While experiential avoidance uniquely predicted almost all measures, the other three mechanisms (values progress, mindfulness, unhelpful coping) had unique benefits. Inconsistent with hypothesis 2 and previous research, baseline distress did not significantly moderate the impact of training.

Consistent with hypothesis 3 and the intention of personalised stage-based coaching, participants did progress along the stages of change, with the proportion in the desired “Action or Maintenance” stages increasing from 34% at time 1 to 52% at time 3. Consistent with hypothesis 4, stage of change was found to be related to practice level at both time 2 and
time 3, with participants in the “Action or Maintenance” stages being more likely to practice “Sometimes or Fairly Often”, while participants in other stages were more likely to practice “Never or Almost Never”. Participants practised less in the unsupported period, with the proportion of participants practicing “Sometimes or Fairly Often” declining from 56% during the supported period, to 36% post training, likely due to the lack of reinforcement.

Consistent with the hypothesis 5, during the supported period, participants who practised the skills experienced significant reductions in stress, depression and PTSD, and increases in mindfulness, while the only significant change for participants who did not practise the skills was declining resilience. Inconsistent with hypothesis 5, during the unsupported period, participants who practised the skills reported significantly greater increases in perceived stress and GHQ relative to those that did not practise.

Study 2 Conclusions

The findings for study 2 demonstrated that the changes made following study 1 were successful in enhancing training transfer. In particular, the training was effective at progressing participants along the stages of change and the level of skills practice increased. The findings also provided qualified support for the revised resilience-training program, especially for participants who practice the skills. Unfortunately, due to the study limitations, including a lack of distressed participants and our inability to control for confounding factors, we were unable to make firm conclusions about the program’s effectiveness relative to the control group. Nonetheless, when considering the great benefits that effective resilience training could deliver for both employees and employers, the results justified conducting a third study to further evaluate the program’s effectiveness. In addition to overcoming the limitations of study 2, the third study sought to address the following three issues:

- workshops 3 and 4 had negative reactions, likely because these workshops, which focused on skills application, were not relevant for early-stage participants.
• although the coaching calls played a critical role in study 2, mandatory coaching calls would be logistically difficult and possibly cost-prohibitive for organisations like the NSWPF to include in an organisation-wide deployment of resilience training.

• most importantly, we sought to address the potential risk posed by the relationship found between skills practice in the unsupported period and increased distress.

Study 3 - 2013 study with ANU Psychology Students

Building on the previous studies, a third and final study was conducted to further improve the resilience-training program, confirm its effectiveness and assess whether the research findings from studies 1 and 2 generalise beyond a Police population. The study was conducted with a group of third year psychology students at the ANU, which was expected to provide a more favourable transfer climate than the NSWPF climate noted in in study 2. While a staged-based, inclusive approach was once again taken to promote training transfer, several changes were made to the program in study 3 to address the issues identified in study 2. These included consolidating from four workshops to one workshop that focused on the needs of early-stage participants, in addition to replacing the two coaching calls and between-session homework tasks with a daily homework task involving performance aids. The workshop content was drawn from study 2, apart from the addition to a brief review of behaviour change principles. The daily homework task, which targeted the development of self-awareness and the meta-habit of coping flexibility, was added to provide a focal point for skills practice that was relevant for participants at different stages of change.

Two performance aids were developed, a Smartphone-App and a paper workbook, and their effectiveness was compared. Each performance aid was designed to achieve three goals. First, they needed to facilitate training transfer. Secondly, they needed to perform functions previously performed by the coaching calls and learning supports. Thirdly, they needed to integrate with other components of the program, reinforcing the change processes
activated in the workshop, and maximising homework engagement and compliance. To achieve these goals, the following functions were included into each performance aid:

- **Informing** – Providing key information on stress, resilience and change;
- **Guiding** – Providing step-by-step guidance for practising the skills;
- **Tailoring** – Tailoring coping activities that can help with a participant’s symptoms and stressors, and tailoring homework based on their stage of change;
- **Nudging** – Prompting participants to do homework, including applying, generalising and maintaining the skills, or other actions that lead to progress along the stages;

Study 3 was unique in being one of the first studies to examine an App as an adjunct to a universal resilience-training program. Given that some functions were only available in the App, including push notification reminders, guided audio exercises, and the ability to automatically generate coping suggestions, it was expected that participants using the workbook, who did not have access to this functionality, would practise less often and less effectively, and thus have poorer training transfer than participants using the App.

*Study 3 Expectations and Hypotheses*

Study 3 was designed to comprehensively assess the impact of the revised program. In addition to testing if the relationships found in studies 1 and 2 between the trainees’ coping and wellbeing levels generalised to a non-police population, study 3 also examined relationships with social support, in recognition of the influence of environmental factors on resilience. In addition to moderating the effects of coping improvements on distress (buffering hypothesis), social support was also expected to influence the transfer climate for resilience training (Burke & Hutchins, 2007; Coultas et al., 2012). Three of Kirkpatrick’s levels were assessed as follows:

- Level 1 (training reactions), including reactions to the workshops, homework, and performance aids.
• Level 3 (behaviour change), including practice amount, quality and change pathway
• Level 4 (wellbeing, coping and support impact), including changes in wellbeing (depression, stress, anxiety, resilience and life satisfaction and coping), changes in coping (unhelpful coping, experiential avoidance, higher mindfulness and progress towards values), and changes in social support (emotional and instrumental support)

Beyond the overall impact of the training, the study examined the influence of:
• training reactions (level 1) on the behaviour change variables (level 3),
• behaviour change variables (level 3), on the coping and wellbeing changes (level 4),
• practice group (App or Workbook) on levels 1, 3 and 4.
• baseline levels of distress and social support on wellbeing changes (these variables were expected to moderate the impact of the training)

While these analyses were limited by our inability to include a control group due to the participants’ circumstances, this limitation was offset by a more favourable transfer climate which was expected to make the psychology students more likely to engage and complete the homework, and higher levels of baseline distress, which were expected to make it easier to detect symptom improvements during the intervention period. Based on these expectations, we made the following hypotheses for study 3:

1. Enhanced wellbeing at time 1 (as indicated by lower levels of depression, stress, anxiety and higher levels of resilience and life satisfaction\(^\text{168}\)) will be associated with:
   o the targeted behavioural measures (lower unhelpful coping and experiential avoidance, and higher mindfulness and progress towards values)\(^\text{169}\),
   o higher levels of emotional and instrumental support,
   o being in action or maintenance stage of change for stress management at time 1.

\(^{168}\) Life satisfaction was added to explore whether the program had benefits beyond distress reduction. Compared to the training outcomes in study 2, limited overall benefits were expected because the program improvements were expected to be undermined by the level of interaction between the participants.

\(^{169}\) Consistent with the findings for the police recruits in studies 1 and 2
2. Participants will report high practice levels (amount and quality) and these will be associated with:
   - more favourable workshop helpfulness ratings,
   - higher “easy to use” ratings for the performance aids, and
   - more favourable homework ratings.

3. The training methods will facilitate progress along the stages of change, such that the majority of participants will:
   - leave the workshop (time 2) in a preparation, action or maintenance stage, and
   - finish the homework period (time 3) in an action or maintenance stage.

4. Participants who progress along the stages of change between times 1 and 3 will report:
   - higher practise levels in the homework period, and
   - greater perceived benefits from the homework.

5. Compared to the Traditional Group, the Technology group will:
   - report more favourable homework and performance aid ratings including
     - lower homework obstacles and difficulties, and
     - higher perceived benefits of the homework, “ease of use” ratings for the performance aids, levels of practice amount and quality, privacy concerns;
   - be more likely to progress along the stages of change between time 1 and time 3.

6. The training methods will facilitate wellbeing, behavioural and support improvements

7. Wellbeing and behavioural improvements will be
   - greater for participants
     - with higher levels of baseline distress and social support,
     - in the technology group as opposed to the traditional group,
     - with high levels of practice amount and quality, and
     - more favourable homework ratings
   - shaped by change pathway

170 Like in study 2, while long-term improvements are expected in wellbeing, behavioural, and support measure, improvements during the homework period are only expected for those with higher levels of baseline distress.
Participants in the Action pathways (Progress or AlreadyinAction) would obtain more benefits than NoProgress participants,\(^\text{171}\),

- Of participants not in an action or maintenance stage at time 1, Progress participants will benefit more than NoProgress participants,
- Of participants in the Action pathways, AlreadyinAction participants would obtain greater benefits than Progress participants.

8. Participants will react favourably to the training methods
   - They will find the workshop helpful,
   - They will find the performance aids “easy to use”,
   - They will report favourable homework ratings including low ratings on homework obstacles and difficulties, favourable beliefs related to the homework, high motivational value of the prize, and low concerns about privacy.

*Study 3 Findings*

While most of the psychology students were psychologically healthy, consistent with expectations, they reported higher levels of distress than the police recruits in study 2. They also reported higher scores for unhelpful coping, experiential avoidance and lower scores on values progress.\(^\text{172}\). The following paragraphs review the study hypotheses.

Consistent with *Hypothesis 1* and the findings for the police recruits in studies 1 and 2, better mental health (as indicated by lower levels of depression, stress, anxiety and higher levels of resilience and life satisfaction), was associated with the targeted behavioural mechanisms (lower levels of unhelpful coping, experiential avoidance, and higher levels of values progress and mindfulness). Better mental health was also related to increased emotional and instrumental support. Furthermore, participants in later stages of change

\(^{171}\) The Progress and AlreadyinAction pathways are collectively known as the Action pathways.

\(^{172}\) With higher levels of distress, it was expected to be easier to detect changes than study 2. Note: mindfulness, resilience, life sat could not be reported as they used different measures in time 2 than 3.
reported marginally significantly higher levels of life satisfaction and helpful coping at time 1 when compared to participants in earlier stages of change.

The regression analyses demonstrated that when combined, the behavioural and support mechanisms explained a large share of variation in all mental health measures (apart from anxiety\textsuperscript{173}), explaining between 52% and 60% of variation in each outcome measure. When combined with the other predictors, each mechanism remained a unique predictor of at least one mental health measure each, with unhelpful coping being a unique predictor of four of the five mental health measures\textsuperscript{174}. Hence, while reducing unhelpful coping was the most beneficial target of change generally, the continued focus on all predictors was justified by their unique contributions to the outcome measures.

*Hypotheses 2* related to the amount and quality of homework practice. While few practised every day during the homework period, the proportion of participants that practised for six or more days was high (63%), comparing favourably with the proportion who practised sometimes or fairly often in the supported period of study 2 (56%)\textsuperscript{175}, and consistent with the number of participants who reported doing the homework well or very well (56%). Furthermore, the average number of days per week stayed relatively constant over the five weeks (2 to 3 days). As expected, significant moderate to strong correlations were found between higher practice amount and quality and key inputs to the homework, namely the workshop and performance aid ratings, in addition to key outcomes of homework, namely perceived homework benefits and incentive value.

However, inconsistent with expectations practice amount and quality only had a small correlation with homework beliefs, and no correlation with homework obstacles, difficulties or privacy concerns. Although the presence of obstacles did not stop participants practising

\textsuperscript{173} The share of variation in anxiety dropped from 37% to 16%, revealing that important predictors of anxiety amongst the psychology students were not included in the study.

\textsuperscript{174} Unlike study 2, experiential avoidance was not a unique predictor of depression or anxiety.

\textsuperscript{175} Note: The specific measure of practise used in study 3 was more specific than study 2.
in the current study, this may have been different without the incentive, further investigation is warranted into understanding and addressing the obstacles. These results also highlight the importance of maximising the helpfulness of the workshop, making the performance aid as easy to use as possible, and maximising and promoting the homework benefits.

Hypotheses 3, 4, 5 and 7 relate to the progress along the stages of change. Being in a later stage of change is a necessary condition for training to be effective and for training transfer (Coutlas et al., 2012). Consistent with expectations, the workshop succeeded at moving participants from pre-contemplation and contemplation into the preparation stage of change, while the homework moved participants into the action stage of change. Between time 1 and 2, the number of participants in the preparation, action or maintenance phase increased by 17%. Progress along the stages continued over the homework phase, with the majority of participants (58%) being in an action or maintenance phase on completion. Consistent with the transtheoretical model of change (Prochaska & DiClemente, 1983), the proportion of participants who progressed into action during the homework period was higher for those in the preparation stage at time 2 (after the workshop), than for participants who were in contemplation, precontemplation, or not stressed.

Hypothesis 6 examined the overall impact of the intervention, with improvements expected over the long term in the wellbeing, behavioural and support measures. While the participants in study 3 were only followed over a short time period, it was encouraging to find significant improvements (difference between time 1 and 3) on the behavioural measures, including an increase in values progress and a reduction in experiential avoidance, and an almost significant reduction was found in unhelpful coping. Significant changes were not found on the wellbeing and support measures. However, almost significant increases were found in life satisfaction and instrumental support. While the changes identified were all consistent with the expectations, they should be interpreted with caution,

\footnote{Related to this were significant reductions in venting and self blame.}
as unlike the first two studies, there was no control group, so it is possible that they could be related to something other than the intervention.

There was also evidence that the type of practice group – pen-and-paper or app – had an impact on the homework variables and stage of change (Hypothesis 5 and 7). Practice quality, homework benefits and ease of use ratings were higher in the technology group compared to the traditional group. There was also some evidence that skills practice increased in the technology group in the early stages and that there was less practice in the traditional group. Furthermore, participants in the technology group were more likely to progress into the action stage than participants in the traditional group. Lastly, practice group was not found to have significant effects on any of the change scores.

One reason to explore trainee characteristics is to better understand when and for whom such training may be impactful. When looking at the trainee characteristics there are a number of findings that baseline distress, stage of change, coping and social support that impact on responses to the training program and outcome variables. These findings shed light on when training is likely to be most effective and barriers to training success.

Consistent with hypothesis 7 and the findings of Flaxman and Bond (2010b), the effect of the intervention was greater for participants with higher baseline distress, including greater reductions in perceived stress, experiential avoidance and unhelpful coping. Given this finding and the fact that most participants had low baseline distress levels, it is not surprising that significant changes were not found overall on the distress measures between time 1 and 3. This is especially the case given that any improvements in distress related to the training would have been offset during this time-period by increasing study pressures.

Furthermore, participants’ baseline scores on helpful coping and anxiety influenced change pathways. Participants with higher levels of anxiety at time 1 were more likely to end up in the Progress pathway, while those with higher levels of helpful coping were more likely
to end up in the AlreadyinAction pathway. These same change pathways had a significant impact on the well-being change scores, in particular anxiety and resilience. In general, the analysis of change pathway revealed that the biggest improvements in wellbeing over the homework period were mainly found for participants who were already in action for stress management at the start of training, followed by participants who moved into progress. Importantly, distress and the change pathway impacted on practice quality and amount. Although these analyses are more exploratory they focus attention on the trainee characteristics and the need for personalised training that starts where the trainee is in relation to distress and change (e.g., Bond & Bunce, 2003; Coultas et al. 2012).

After conducting two previous training programs and incorporating changes in study 3 based on previous feedback, there is evidence that participants are responding positively. Consistent with hypothesis 8 and the comments, the workshop was more positively received than the workshops in study 2\textsuperscript{177}, and the vast majority of participants reported that their performance aid was easy to use, had positive beliefs about the homework and had minimal difficulties with the homework\textsuperscript{178}. Only a small number of participants were concerned about privacy and the prize was a key motivator for many participants to do the homework.

\textit{Study 3 Conclusions}

Study 3 built on studies 1 and 2 and particularly focuses on homework, stages of change and practice methods and the role of traditional and new technology. While many studies have looked at the use of web-based psychological interventions (Griffiths et al., 2010; Proudfoot et al., 2011; Ritterband et al., 2009), few studies have been conducted incorporating Apps, especially Apps used as an adjunct to therapy or training. There were some promising findings with participant improvements across time on behavioural measures, including an increase in values progress and a reduction in experiential avoidance,

\textsuperscript{177} 80\% of participants found the workshop helpful in study 3, a higher proportion of participants than any of the workshops in study 2 (workshop 1 – 65\%, 2 – 56\%, 3 - 39\% and 4 – 31\%).

\textsuperscript{178} Including 44\% who reported no difficulties at all
and an almost significant reduction was found in unhelpful coping. These findings are especially positive, when considering that there did not appear to be any negative impacts of replacing the resource intensive coaching calls with performance aids. With respect to differences between the practice methods, there were limited impacts on well-being scores, but technology did facilitate practice quality. There was also evidence that change pathway moderated the impact of the training program. What this means is that in an iterative way affecting stages of change could be an important first step in facilitating training transfer.

**Implications of Research program**

Over the course of the three studies, we substantially improved the training program and developed innovative techniques that enhanced retention of key knowledge and skills. We developed methods to personalise the program based on stage of change, which succeeded in tailoring to diverse needs and effective homework tasks that facilitated progress along the stages of change. Furthermore, we demonstrated that the level of skills practice was related to improvements in mental health and coping, especially when practice is guided. There were also some promising findings with participant improvements across time on behavioural measures, including an increase in values progress and a reduction in experiential avoidance, and a (marginally significant) reduction in unhelpful coping.

All three studies were informed by existing theory and research concerning the importance of coping strategies and emotional regulation for addressing stress and building resilience (Folkman & Moskowitz, 2004; Gross, 1998; Lazarus & Folkman, 1984; Masten, 2007). The resilience training built on Lazarus and Folkmans’ (1984) Transactional Model of Stress and Coping, which highlighted the influence of appraisal and coping; together with the goodness of fit hypothesis (Folkman & Moskowitz, 2004), in which coping is deemed effective when there is a strong fit between the coping strategy and the perceived controllability of stressors (Conway & Terry, 1992; Lazarus & Folkman, 1984).
To address the tendency of police to engage in avoidant coping such as emotional detachment and unhealthy drinking patterns (Richmond et al., 1998), Acceptance and Commitment Therapy was chosen as a framework that underpinned the training design (Bond & Hayes, 2002). In the ACT approach there is an emphasis on adaptive methods of emotional regulation, including the promotion of acceptance as an alternative for experiential avoidance, combined with a focus on values and goals and meaning making, which put adverse experiences within the context of achieving higher-order overarching valued goals (Bilich, 2009; Bond & Hayes, 2002; Flaxman & Bond, 2006; Strosahl et al., 2004).

While the ACT-based mechanisms of change (e.g. experiential avoidance) were related to better wellbeing, consistent with the experience of Flaxman, we had little success in fostering change on these mechanisms in a healthy population. This is consistent with resilience literature which recommends that resilience-building interventions target sensitive periods (Luthar & Cicchetti, 2000). Recognising that these sensitive times often come at inconvenient times for training, we drew on best practices in training transfer (Coultas et al., 2012) to facilitate change, with a particular focus on skills practice and training motivation. Drawing on the ‘Stages of Change’ model, also known as the Transtheoretical Model of Change; TTM (Evers et al., 2006; Prochaska & DiClemente, 1983) we developed a model of personalised training that activated change processes relevant to each participant. Not only did our training facilitate progress along the stages of change, we also showed that participants who moved into an action stage (e.g., the “Progress” Change Pathway), reported improvements on both the targeted coping mechanisms and mental health. This provides evidence that stage progress is an important precursor to mental health improvements.

In this way the current training program design and implementation extended existing models and was ambitious, novel and comprehensive in its approach. In fact, in the policing context it represents a critical advance through the inclusion of comparatively larger
participant numbers, control groups and a wider range of factors being examined relative to other studies (Arnetz et al., 2009; Berking et al., 2010).

**Future Directions**

Given the role of the practice method in explaining practice quality and progress along the stages of change, there is more work that needs to be done exploring the use of Apps and traditional performance aids as training transfer methods. The performance aids were developed to personalise homework tasks based on stage of change and stressors and symptoms. While the feedback was positive, more work could be done to improve usability and to explore other forms of personalisation. For example, homework personalisation could be performed based on an assessment of each participant’s risk and protective mechanisms at different levels (biological, psychological, environmental), which could direct participants to address factors beyond the mechanisms targeted in our research program (e.g. it could target neuroticism, negative self-referential processing, poor social skills, poor attachment). It could also extend our work to optimise the sequence of interventions used to address issues related to emotional dysregulation and risk factors.

All three studies demonstrated the importance of transfer climate (Burke & Hutchins, 2007; Coultas et al., 2012) on all levels of Kirkpatrick’s model. This is especially the case in an environment such as policing where stigma related to mental health issues remains a problem. Wherever issues with stigma exist we recommend making attendance in a basic workshop and completion of a mental health screen compulsory. While basic attempts were made to foster a positive transfer climate, we were limited by a lack of Supervisor and Peer reinforcement. The importance of the social environment on our mental health and coping measures was highlighted in our final study where we included social support measures.

Noting that resilience is influenced by multilevel dynamics, we also recommend further examination looking at ways of promoting Person-Environment (PE) Fit. PE Fit, which refers to the degree of compatibility between the attributes of a person and attributes of
RESILIENCE TRAINING IN THE WORKPLACE

their work environment\(^{179}\), has been studied at many different levels in the workplace, including fit between a person and their vocation (PV), job (PJ), organisation (PO), group (PG) and supervisor (PS) (Kristof-Brown, Zimmerman, & Johnson, 2005). It is a useful framework for understanding how characteristics of employees and their work environments jointly influence the etiology of chronic stress, and for identifying actions that organisations can take to reduce vulnerability and build resilience.

The basic premise of PE research is that positive outcomes result when the characteristics between a person and their work environment are similar, aligned or fit together (Ostroff & Schulte, 2007). PE fit has been associated with reduced stress and turnover, higher job satisfaction and commitment (Edwards, 1996; Edwards, 2008; Kristof-Brown & Guay, 2011). Chronic stress in the workplace can be characterised as a problem of poor PE fit on emotion regulation that occurs when the protective factors experienced by a person in a particular environment are insufficient to counteract or buffer the effects of the risk factors that they experience in that environment. A basic analysis from this perspective, highlights that resilience training is only one of many ways that organisations and employees could work together to address the problem of chronic stress:

1. Employees can change their environment by changing jobs, organisations, supervisors, teams or assigned responsibilities
2. Organisations can change who they employ by updating their selection or promotion processes to take into account fit on emotion regulation
3. Employees can change the way they interact with their environment (e.g. by developing support networks, requesting changes to demands, developing new coping skills and being mindful of risk factors)

\(^{179}\) Two broad forms of PE Fit have been identified: supplementary and complementary fit. Supplementary fit occurs when a person brings personal characteristics (e.g. personality, values, goals and attitudes) that are similar to those already in the environment. In contrast, complementary fit occurs when a person supplies skills that are needed by the environment (demands-abilities fit) or when the environment meets the needs of an individual (needs-supplies fit). Common to both forms of fit is interactions that are mutually rewarding for both the person and their environment, with the most rewarding experiences involving both forms of fit.
4. Organisations can provide better support to employees to reduce the likelihood of chronic stress problems (e.g. through regular screening to detect and provide additional support to employees who are struggling, by identifying and addressing frequent stressors, by providing coping skills training to employees and by training supervisors on ways of supporting employees who are struggling)

*Limitations*

A key limitation across all three studies was the nature of the sample and the nature of prevention interventions like resilience training, which are typically given to healthy participants to prevent them from becoming unwell. Time X group interaction effects on measures of symptomatology cannot be expected in the short term in healthy participants. In order to measure the impact of the resilience training on participants’ long-term coping habits and mental health, longitudinal research following participants up over several years is required. That said, the pattern of findings suggests change across time (greater reductions in perceived stress, experiential avoidance and unhelpful coping) can be detected in the short term for participants with higher baseline distress, provided the sample size is large enough.

Another limitation across the three studies was a lack of an effective control group, meaning we could not isolate the effect of the intervention from the effect of confounding factors such as the weather. There were also issues with small cell sizes especially when wanting to categorise trainees on the basis of pre-training characteristics such as change pathway. These patterns make it difficult to systematically assess the impact of the training. A number of exploratory analyses have been conducted concerning trainee characteristics, which have added a degree of complexity to the analyses.

Better research designs are required to isolate impacts including larger samples, trials with comparison groups and (e.g., compare coaching with no coaching), interviews with participants and the use of physiological, behavioural and social outcome measures. Future
research should ideally have at least three randomly assigned groups: no training, training only, training plus practice, that are matched in terms of demographic makeup, with mental health and coping measured at same times. Furthermore, a more thorough analysis should be done on the effectiveness of replacing the “coaching call” with the performance aids, to compare effectiveness and cost. Comparison can be made between performance aids (both App and workbook) and coaching calls, and between different homework tasks, as well as exploring factors that impact on the adoption of new technology.

**NSW Police Recommendations**

The following recommendations were provided to the NSWPF on resilience training:

1. *Reduce the length of training*
   - Many participants in a universal, mandatory resilience training program are not looking to, or ready to change their coping behaviours. Therefore, to avoid wasting time and resources, the length of the program should be reduced to the essential content delivered in two workshops spaced close together.

2. *Reduce the gap between resilience training and starting the job*
   - Resilience training can be expected to become more relevant and engaging to participants when they start working as police officers. If there is a long gap between attending training and starting the job, it is likely that participants will forget the skills before they recognise their importance. To maximise training transfer the workshops should be scheduled closer to starting the job.

3. *Refine the workshop content*
   - The two workshops should include a refined version of the existing workshops 1 and 2, incorporating the interpersonal skills content from workshop 3
   - The focus of the workshops should be on building a common language around stress and ways of coping, normalising stress, developing an awareness of a broad range of coping skills, motivating participants to build better coping habits and
orienting participants to tools that they can use to practise these skills and where they can get more information and support when they have a need

- Between the two sessions, participants should be required to practise skills

4. **Training should be tailored to individual needs**

- Provision should be provided for participants to address their unique needs.
- Participants should complete a simple self-assessment (including strengths, weaknesses and motivation to change).
- The self-assessment output should include a list of tailored activities that participants can independently complete (in private) to become more resilient (including activities to build motivation if necessary)

5. **Coaching calls**

- While participants valued the coaching and it helped to tailor the program to the needs of each participant, coaching is time intensive and it would be difficult to conduct on a larger scale. If coaching is to stay in the program, to be effective it needs to have a clear focus, such as on actioning the output of a self-assessment.

6. **Maintain compulsory attendance**

- Keeping in mind the impact of workload and stigma on reducing attendance when the program was voluntary (in study 1), attendance should remain mandatory.

7. **Address stigma in the broader organisation**

- To be successful, the training must fit with the organisational culture. Stigma related to having mental health challenges puts resilience training at odds with the NSWPF culture. It reduces the likelihood that officers seek help, stops communication, and prevents colleagues from offering support. It also reduces the likelihood that officers pay attention to the content.
- It is recommended that the NSWPF introduce an organisation wide campaign to reduce stigma, normalise stress and encourage help seeking. Two appropriate
strategies for diminishing stigma are education and contact (Corrigan, 2004).

Contact refers to highlighting officers with stress-related problems who are able to hold down their job, encouraging these officers to share how they have coped.

8. **Integrate the emotional components of resilience and crisis training**
   - Officers need to understand why constant emotional detachment is not healthy and they need to know how to re-engage emotionally after work.

9. **Led by the organisation**
   - For resilience training and any stigma reduction effort to be effective, it needs to be driven and co-facilitated by experienced police officers that are natural leaders in the organisation. That is people who other officers are influenced by.

10. **Improve post-training support**
    - In order for supervisors and peers to be able to reinforce skills taught in resilience training, established officers need to be provided training on supporting colleagues under stress. This should include a briefing on resilience training and encouragement for supervisors to reinforce the training with new recruits.

11. **Develop a more sophisticated performance aid**
    - Performance aids, also known in the literature as performance support tools, job performance aids or job aids, refer to tools that support people to perform tasks more efficiently and effectively (Jackson, 2012; Paino & Rossett, 2008).
    - To help officers tailor the training to their own needs, and to refresh their skills as required, it is recommended that sophisticated performance aids be developed to make it easy for participants to practise the skills privately and effectively.
    - To maximise adoption, any performance aid should be introduced during the workshops to ensure that participants are familiar with using it.
12. Research

- In order to measure the impact of the resilience training on participants’ long-term coping habits and mental health, further research will need to be conducted following participants up over several years on the job.
- To be able to make claims of effectiveness, such a longitudinal study would require a randomly assigned training and control group, that are matched in terms of demographic makeup, with mental health and coping measured at same times.
- Detecting and controlling for social desirability bias on responses to socially sensitive mental health items is particularly important, as such bias makes it harder to detect symptom change (Van de Mortel, 2008).

13. Address Problematic Stressors

- In addition to deploying resilience training, the NSWPF should take actions to address both problematic stressors faced by officers on the job, in addition to stressors observed during the training program.

Conclusion

In conclusion, the journey of resilience building in an organisational setting is complex. We have made great strides, but there is much more to be done, in order to extend our research and to apply what we have learnt to improve the quality of resilience training available to employees such as police officers. Of critical importance, is the need for researchers in the field of occupational health psychology to follow the example of our counterparts in the field of developmental psychopathology who have a rich tradition of conducting rigorous, longitudinal research that draws on multilevel dynamic models. While the demands of organisational settings make it more challenging to find appropriate samples for longitudinal studies, given the economic and health costs of chronic stress to the community, the potential rewards of more rigorous research would surely be worth the effort.
References


RESILIENCE TRAINING IN THE WORKPLACE


RESILIENCE TRAINING IN THE WORKPLACE


Appendix 1
Research Practicum

The Development and Assessment of a Resilience Building Program
for Use With Police Recruits During Their Initial Training
Preamble

The Research Practicum component of the Doctor of Psychology (Clinical) entails that the candidate will conduct applied research during one of their clinical placements that is demonstrably related to their main research thesis topic. This research practicum component is in addition to the requirements of the research thesis. Thus, the formal research report that is produced regarding the research practicum is incorporated as an appendix in the final submitted dissertation.

Examples of work that would be deemed appropriate for a research practicum include: refining and evaluating an intervention using a case series design; examining the sensitivity of an assessment tool to detect treatment change; or evaluating an intervention program instituted by an agency for a problem area relevant to the student’s thesis research.

The Applied research conducted by the author with the NSW Police was deemed to be an adequate and appropriate research practicum by the Australian National University Research School of Psychology. This section contains a report prepared by the author and presented to the NSW Police in May 2014. While the content of this report parallels the content of chapters 2 to 4, its focus was on implications for the NSW Police as opposed to implications for the academic literature.
CHAPTER 5

STUDY 3 – THE DEVELOPMENT AND ASSESSMENT OF A RESILIENCE BUILDING PROGRAM FOR USE WITH POLICE RECRUITS DURING THEIR INITIAL TRAINING

Study 3 was designed and undertaken by Mr Chris Horan, Clinical Psychologist and Doctoral Student, Research School of Psychology, the Australian National University, under the supervision of Professor Don Byrne, Director, Research School of Psychology, the Australian National University.

The design of the resilience building workshops was undertaken in collaboration with Dr Linda Bilich, Clinic Manager, Research School of Psychology, the Australian National University, and the Study Team is indebted to Dr Bilich for her expert advice and guidance.

The conduct of the final workshop program was co-facilitated by Ms Alicia Franklin, Clinical Psychologist and Doctoral Student, Research School of Psychology, the Australian National University.

Chapter 5 presents the rationale, design and results of a trial of a resilience-training program conducted with students at the NSW Police Force Academy in Goulburn, with the objective of preventing the development of chronic stress problems. Specifically, it outlines the theoretical framework underlying the intervention design, before providing an outline of the program structure and content. It then reviews the findings of a pilot study conducted in 2011 including a range of changes to address attrition and training effectiveness. The final part of the chapter is devoted to the main trial, including results and recommendations for future work. Key research questions included: Can a brief training course enhance the resilience of police recruits? What is the most appropriate resilience training design? What factors are related to better outcomes for resilience training?
The pilot study highlighted three main challenges: 1) Optional participation in a time constrained environment leads to poor attendance levels; 2) Participants had poor levels of skills practice and poor knowledge and skills retention; and 3) Stigma towards mental health issues prevents natural reinforcement of resilience training. To address these issues, several changes were made in the main study, including requiring recruits to attend workshops and including a range of learning supports to tailor the program to needs of each individual and to encourage skills practice. In addition, the program objectives were adjusted to account for the needs of different participants.

Unfortunately, due to the small size of the training group in the main trial, and the inability to control for confounding factors, it is not possible to make claims about the effectiveness of training at improving participants’ coping behaviours and mental health during the training period. It is also not possible to make claims about the long-term impact of the training as trial participants were only followed at the academy. However, the relationships between measures of coping behaviours and the mental health measures were significant and in the expected directions. Other findings from the main trial were as follows:

• Overall participants found the training helpful, with helpfulness ratings better than the pilot study. They found workshops 3 and 4 less helpful than workshops 1 and 2.

• Participants demonstrated in the quizzes and on the coaching calls that they generally understood and remembered the key concepts.

• Participants started the program with different levels of motivation to change their behaviour. Motivation increased over the course of training, as indicated by several participants moving from pre-contemplation towards a stage of action in terms of using stress management skills.

• In addition to differences in motivation, coaching conversations also revealed variation in the baseline skill levels of participants
• Participants found the learning supports helpful, especially the coaching call. They also expressed that a smartphone application for practising the skills would be helpful, and that they would be willing to use it.

• While practice levels were acceptable during the workshop period, they dropped off after the completion of the workshops

The following recommendations are made based on the trial findings:

1. **Maintain compulsory attendance**
   - Keeping in mind the impact of workload and stigma on reducing attendance when the program was voluntary (in the pilot study), it is recommended that attendance in resilience training remain mandatory

2. **Reduce the gap between resilience training and starting the job**
   - Long gaps between attending training and experiencing stress on the job increase the likelihood that participants will forget the skills. To maximise training transfer the workshops should be scheduled closer to starting the job

3. **Reduce the length of training**
   - Many participants in a universal, mandatory resilience training program are not looking to, or ready to change their coping behaviours. Therefore, to avoid wasting time and resources, the length of the program should be reduced to the essential content delivered in two workshops spaced close together

4. **Refine the workshop content**
   - The two workshops should include a refined version of the existing workshops 1 and 2, incorporating the interpersonal skills content from workshop 3
   - The focus of the workshops should be on building a common language around stress and ways of coping, normalising stress, developing an awareness of a broad range of coping skills, motivating participants to build better coping habits and
orienting participants to tools that they can use to practise these skills and where they can get more information and support when they have a need

- Between the two sessions, participants should be required to practise a range of different skills

5. Training should be tailored to individual needs

- Provision should be provided for participants to address their unique needs
- Participants should be required to complete a simple self-assessment (including strengths, weaknesses and motivation to change)
- The output from the self assessment should be a list of tailored activities that they can independently complete to become more resilient (including activities to build motivation if necessary)
- Tailored activities should be able to be done in private

6. Coaching calls

- While participants valued the coaching and it helped to tailor the program to the needs of each participant, coaching is time intensive and it would be difficult to conduct on a larger scale. If coaching is to stay in the program, to be effective it needs to have a clear focus, such as on actioning the output of a self-assessment.

7. Address stigma in the broader organisation

- To be successful, the training must fit with the organisational culture. Stigma related to having mental health challenges puts resilience training at odds with the NSW Police Force culture. It reduces the likelihood that officers seek help, stops communication, and prevents colleagues from offering support. It also reduces the likelihood that officers pay attention to the content.
o It is recommended that the NSW Police Force introduce an organisation wide campaign to reduce stigma, normalise stress and encourage help seeking. Two appropriate strategies for diminishing stigma are education and contact (Corrigan, 2004). Contact refers to highlighting officers with stress-related problems who are able to hold down their job, encouraging these officers to share how they have coped.

8. Led by the organisation

o For resilience training and any stigma reduction effort to be effective, it needs to be driven and co-facilitated by experienced police officers that are natural leaders in the organisation. That is people who other officers are influenced by.

9. Improve post-training support

o In order for supervisors and peers to be able to reinforce skills taught in resilience training, established officers need to be provided training on supporting colleagues under stress. This should include a briefing on resilience training and encouragement for supervisors to reinforce the training with new recruits

10. Develop a more sophisticated performance aid

o To help officers tailor the training to their own needs, and to refresh their skills as required, it is recommended that a sophisticated performance aid is developed that makes it easy for participants to practise the skills in private

o To maximise adoption, any performance aid should be introduced during the workshops to ensure that participants are familiar with using it.

11. Research

o In order to measure the impact of the resilience training on participants’ long-term coping habits and mental health, further research will need to be conducted following participants up over several years on the job
To be able to make claims of effectiveness, such a longitudinal study would require a randomly assigned training and control group, that are matched in terms of demographic makeup, with mental health and coping measured at the same times.
THEORETICAL FRAMEWORK

As outlined in earlier chapters, policing is an inherently stressful occupation. The nature of police work regularly exposes officers to a range of organizational and operational stressors, including trauma, confrontation and violence (Collins & Gibbs, 2003). For some officers, regular exposure to these stressors can lead to the development of chronic stress problems, which can have consequences for:

- **The officer**: Police stress is related with a range of physical, psychological and behavioural consequences including, but are not limited to, Post Traumatic Stress Disorder (PTSD), depression, suicide, substance abuse, cardiovascular illness, high blood pressure and decreased job dissatisfaction.

- **Their family and friends**: Stress can undermine relationships leading to emotional detachment, divorce and domestic violence (Brough, 2005; Janzen, Muhajarine, & Kelly, 2007; Madamba, 1986; Martinussen, Richardsen, & Burke, 2007).

- **Police organisations**: Police stress is associated with absenteeism, reduced morale and performance (Bakker & Heuven, 2006; Burke & Mikkelsen, 2006). The impact of chronic stress problems on organisations like the NSW Police Force is costly, including both employee compensation costs and reduced productivity.

*Why do some officers have more problems with stress than others?*

The vulnerability of an individual to developing stress-related problems is increased by a family history of mental illness (Inslicht et al., 2010) and personality factors such as neuroticism, trait anger, trait anxiety and dissociation (Brondolo et al., 2009; McCaslin et al., 2008; Newman & LeeAnne Rucker-Reed, 2004). In contrast, stress vulnerability is reduced by resilience factors. Resilience refers to the maintenance of healthy psychological and physical functioning adaptation, despite experiencing adversity (Bonanno, 2004; Luthar &
Cicchetti, 2000; Masten & Wright, 2009). An extensive review of longitudinal research by Masten and Wright (2009) identified that resilient outcomes are underpinned by six protective systems: attachment relationships; problem-solving skills; self-regulation skills; agency and mastery motivation; meaning making and cultural traditions. In addition, self-reported resilience has been related to higher levels of positive affectivity, hardiness and sense of coherence (Block & Kremen, 1996; Friedman & Higson-Smith, 2003; Ong, Bergeman, Bisconti, & Wallace, 2006).

The concept of resilience is of particular relevance to police given that exposure to stressors is part of the job that cannot be avoided. The literature on resilience reveals that resilience is a common occurrence for police (Paton, Violanti, Burke, & Gehrke, 2009), with only a small proportion of officers exposed to traumatic stressors going on to develop PTSD (Marmar et al., 2006). Individual factors related to police resilience include hardiness, defined as a personality style marked by a strong sense of commitment, control and challenge (Kobasa, Maddi, & Kahn, 1982), which has been found to protect against depression and anger in police and PTSD in veterans (Andrew et al., 2008; James, Wilson, & McMains, 2006; King, King, Fairbank, Keane, & Adams, 1998). A related factor, sense of coherence, has also been associated with reductions in post traumatic symptomatology in police officers (Friedman & Higson-Smith, 2003). Sense of coherence refers to a sense of confidence that stressors make sense and are predictable (comprehensibility), that one has the resources to meet the demands (manageability) and that the challenge of a stressor is worthwhile (meaningfulness) (Antonovsky, 1987).

**Resilience and coping**

Resilience is also underpinned by a core group of processes known as “coping”. Coping refers to thoughts and behaviours that individuals use to respond to threatening demands (Lazarus & Folkman, 1984). According to the Transactional Model of Stress and Coping
(Lazarus & Folkman, 1984), the impact of a stressor depends on the way an individual thinks about, or appraises, the stressor, in addition to the strategies used to cope with the stressor and symptoms. Drawing on this model, resilience is shaped by individual differences in appraisal and coping, such as the tendency to find situations less threatening, or the presence of coping skills that enable adaptation. The current trial aimed to build the resilience of new recruits by training them in adaptive ways of thinking about stress and adaptive coping skills. A secondary aim was to foster the development of the six protective systems identified by Masten and Wright (2009).

**Why are some coping strategies more adaptive than others?**

The current resilience-training program was informed by an understanding of differences between coping strategies, including characteristics that make coping strategies more or less adaptive. At a high level, coping strategies can be categorized as either problem-focused or emotion-focused coping (Folkman & Moskowitz, 2004). Problem-focused coping strategies seek to change the stressors (e.g. planning and problem solving), while emotion-focused coping strategies are characterized by attempts to reduce negative emotions and stress symptoms (e.g. relaxation exercises).

Within emotion-focused coping is the subcategory of avoidant coping which includes strategies that are intended to avoid, or get rid of, stressors (Carver, Scheier, & Weintraub, 1989) (See figure 5.1). A key driver of avoidant coping is a psychological process known as experiential avoidance (Fledderus, Bohlmeijer, & Pieterse, 2010). Experiential avoidance describes the extent to which individuals: 1) are unwilling to stay in contact with painful thoughts, memories and emotions (private experiences); and 2) take steps to alter or avoid these experiences (Hayes, Strosahl, & Wilson, 1999). Avoidant behaviours commonly taken to alter or avoid private experiences include drinking, distraction, venting, suppression, mental disengagement (e.g. zoning out) and task avoidance.
Avoidant coping and experiential avoidance are generally unhelpful as shown below:

- Attempts to control or get rid of painful private experiences paradoxically lead to an intensification of these experiences (Wegner & Zanakos, 1994)
- High levels of experiential avoidance is related to high psychological distress (Kashdan, Barrios, Forsyth, & Steger, 2006) and poor performance (Bond & Bunce, 2003).
- Behaviours consistent with experiential avoidance (e.g. numbing) are a diagnostic feature of PTSD
- Researchers claim that psychological disorders are largely caused by experiential avoidance (Bond & Hayes, 2002; Hayes, Luoma, Bond, Masuda, & Lillis, 2006)

In contrast to avoidant coping (Carver, 1997), according to the goodness of fit hypothesis (Folkman & Moskowitz, 2004), effective coping is characterized by a fit between the coping strategy and the perceived controllability of a stressor (Conway & Terry, 1992; Lazarus & Folkman, 1984). This is illustrated by cases of poor fit, including attempts to use problem-focused coping to control uncontrollable stressors, which would most likely lead to frustration, or attempts to use emotion-focused coping with controllable stressors, which represents a lost opportunity to address underlying problems. It is also consistent with research findings that problem-focused coping is more effective with controllable stressors, and emotion-focused coping is more effective with uncontrollable stressors (Forsythe & Compas, 1987).
The current training program aimed to increase fit by promoting *coping flexibility*, which refers to the selection of coping strategies that fit stressors and symptoms, based on appraisals of control (Folkman & Moskowitz, 2004). The focus on coping flexibility is supported by findings that the use of a wider range of coping strategies is related to reduced distress (Lam & McBride-Chang, 2007), and that variation in control appraisals (e.g. noticing differences in control) is related to lower levels of anxiety and depression (Cheng, 2001). The design was guided by factors related to coping flexibility:

- Coping flexibility is reduced by an inability to tolerate uncertainty; time pressure; and poor appraisals of stressor controllability (Cheng, 2003), in addition to the experience of negative emotions (Gunthert, Cohen, & Armeli, 1999; O'Brien & DeLongis, 1996), and it is expected to be reduced by experiential avoidance.
- Coping flexibility is increased by being skilled in the use of a wide repertoire of coping strategies, in addition to the regular experience of positive emotions which expand attention, thoughts and behavioural flexibility (Fredrickson, 1998; Fredrickson & Joiner, 2002).
**Police and coping**

The coping styles that are modeled and socialized by supervisors and peers in police organizations are not always adaptive. Officers tend to over-rely on problem-focused coping strategies at the expense of emotion-focused strategies (Evans, Coman, Stanley, & Burrows, 1993). Unfortunately, neglecting emotion-focused strategies fails to prepare recruits for distressing emotional experiences, leading to increased use of avoidant-coping strategies such as emotional detachment, denial and alcohol use. The consequences of this coping style are illustrated by the findings below:

- Both high levels of avoidant coping (Pasillas, Follette, & Perumean-Chaney, 2006) and excessive use of problem-focused strategies (Patterson, 2003) are related to increased distress levels
- Emotional detachment undermines the ability of officers to emotionally engage and maintain healthy relationships and social networks (Madamba, 1986)
- Difficulty identifying feelings leads to increased depression levels in new recruits (Williams, Ciarrochi, & Deane, 2010)
- Two fifths of respondents on a NSW Police survey reported excessive alcohol consumption (an avoidance strategy), with higher rates of drinking reported among younger police (Richmond, Wodak, Kehoe, & Heather, 1998).

**Stress management training**

Employee interventions to reduce stress-related problems can be delivered at three levels (R. Randall & Nielsen, 2010):

- *Primary* interventions, which aim to prevent stress related problems by reducing exposure to stressors (Bond, Flaxman, & Bunce, 2008; Chapin, Brannen, Singer, & Walker, 2008; Muller, MacLean, & Biggs, 2009);
• **Secondary** interventions, which are provided to employees before they develop chronic stress-related problems with the aim of modifying coping responses; and

• **Tertiary** interventions, which provide treatment to employees who are already experiencing stress-related problems (Randall, Buys, & Kendall, 2006).

With a focus on modifying employee skills, resilience training is a variation of a common secondary intervention known as stress management training (SMT) (Randall & Nielsen, 2010). SMTs typically involve increasing employees awareness of stress in addition to modifying the way employees both appraise stressors and cope with stress. A meta-analysis looking at the effectiveness of thirty-six SMTs found that SMTs based on cognitive behavioural therapy (CBT) produced larger effect sizes than other types of SMT (Richardson & Rothstein, 2008). The current trial involved a CBT-based SMT that was both universal (provided to all employees) and preventative (delivered before experiencing the stressors).

While increasing attention is being paid to stress management interventions for police officers (Cooper, 2003), the empirical literature on their effectiveness is currently limited and inconclusive. A Cochrane review of interventions for the prevention of psychological disorders found ten randomized trials, most of which were small and of low quality (Penalba, McGuire, & Leite, 2008). Furthermore, the majority of studies in the review were tertiary interventions, including only three secondary interventions: problem solving and social skills training ($n=90$) (Aremu, 2006); mental imaging training ($n=75$) (Backman, Arnetz, Levin, & Lublin, 1997); and physical fitness and stress inoculation ($n = 86$) (O'Neill, Hanewicz, Fransway, & Cassidy-Riske, 1982).

Another group that is exposed to unavoidable traumatic stressors is soldiers. Both the United States (Casey, 2011) and the Australian (Cohn, Hodson, & Crane, 2010) defence forces are trialing resilience training programs. Like the current intervention, the Australian Army
program, known as BattleSMART, is based on CBT and aims to build coping flexibility. It teaches training new recruits to make accurate appraisals of the level of control in stressful situations and to match those appraisals with appropriate problem-focused and emotion-focused coping strategies (Cohn et al., 2010). Coping strategies are taught in four domains: adaptive physiological responses (arousal reduction techniques); adaptive ways of thinking about situations (attribution retraining); and adaptive behaviours and emotion management (including engaging and accepting support).

In summary, while there is a substantial body of research demonstrating the effectiveness of SMTs, there are very few published trials that are targeted towards police officers. The present study aims to address this gap in the research by trialing a program that is well suited theoretically to building resilience with police officers, in particular an SMT that aims to promote coping flexibility, which is based on the principles of a recent form of CBT known as Acceptance and Commitment Therapy (ACT). The following section outlines the principles of ACT before explaining why ACT was chosen as the basis of the current intervention.

**Acceptance and Commitment Therapy (ACT)**

ACT is a form of CBT that uses mindfulness and acceptance strategies, combined with behaviour change strategies, to reduce avoidance and increase psychological flexibility. Specifically it trains individuals in skills to stay in the moment, as opposed to getting caught up in mental experiences of the past or future, to accept difficult experiences as they arise (including thoughts, emotions, memories), and to persist with actions consistent with their goals and values (Bilich & Ciarrochi, 2009; Bond & Bunce, 2000). By developing these skills, ACT enables individuals observe distressing thoughts, memories and emotions, without needing to control or get rid of them (Bond & Hayes, 2002). Over time, as individuals become more accepting of these experiences, they become less distressing.
The benefits of ACT have been documented across many settings. A meta-analysis of randomized control trials has found ACT to be effective at treating psychological disorders (Powers, Zum Vörde Sive Vörding, & Emmelkamp, 2009). In addition, workplace trials in local government and media organizations have demonstrated that ACT is at least as effective as other forms of Stress Management training at reducing distress (Flaxman & Bond, 2010a) and improving mental health (Bond & Bunce, 2000), with benefits found to be greater for participants that were more distressed at the beginning of training (Flaxman & Bond, 2010b). Furthermore, ACT has been demonstrated to improve the mental health of senior NSW police officers (Bilich & Ciarrochi, 2009).

**Why use ACT to promote resilience in police officers?**

There are four main reasons why an ACT-based intervention is expected to be better suited than alternative SMTs for promoting resilience in police officers. Firstly, ACT is thought to be particularly beneficial for preventative interventions, due to its focus on building awareness of, and reducing experiential avoidance, which would reduce the need for recruits to engage in maladaptive coping when faced with stressors later in their careers (Biglan, Hayes, & Pistorello, 2008; Fledderus et al., 2010). This is especially relevant for police officers given their exposure to traumatic stressors, and their tendency to use avoidant coping strategies that are characteristic of PTSD, such as emotional detachment or numbing (Pasillas et al., 2006).

Secondly, compared with other stress management programs that focus on stress education and symptom reduction, ACT’s focus on achieving goals and enhancing quality of life is expected to be more appealing for officers that have avoidant coping tendencies, who are likely to be unwilling to try non-avoidant coping strategies. By starting with an exploration of what they want, being their values and goals, ACT provides an alternative reason to
engage in training. And by highlighting how avoidant coping undermines their goals, ACT provides justification for changing behaviour. This focus is also expected to be more engaging and beneficial for psychologically healthy participants, who are expected to be the majority of participants in a universal intervention.

Thirdly, ACT skills can also be used to develop the protective systems identified by Masten and Wright (2009). Self-regulation is promoted by teaching participants ways of persisting with valued activities despite the presence of distressing thoughts, memories and emotions. Agency and mastery motivation is nurtured by setting achievable goals that are valued and teaching ways to deal with barriers that may arise. Agency is also fostered by redirecting efforts away from unhelpful attempts to control that ultimately undermine one’s self efficacy and engender learned helplessness. Meaning making is promoted by encouraging reflection on values when adverse experiences occur and by accepting distress within a context of pursuing valued goals (Strosahl, Hayes, Wilson, & Gifford, 2004). Attachment relationships are nurtured by being enhancing the ability of participants to engage emotionally with others. Furthermore, the focus on goals, directs participants towards addressing skills deficits in ways that support attachment relationships (e.g. assertiveness, conflict resolution, negotiation and empathy) and problem solving (including identify solutions, planning, time management, prioritization).

And finally, ACT’s focus on developing psychological flexibility also supports the development of coping flexibility, enabling participants to choose coping strategies that fit the nature of their stress symptoms and stressors. Through being more mindful of the needs of each situation, and though fostering acceptance, ACT reduces rigidity and enables participants to engage the most helpful way of coping with each situation.
Workshop design
Consistent with the theoretical framework, the training program was designed to promote coping flexibility, with the aim of preventing suffering (e.g. reducing mental illness and increasing life satisfaction) and increasing personal effectiveness (e.g. achievement of goals). The program was developed with reference to protocols of previous ACT-based SMIs (Bilich & Ciarrochi, 2009; Bond & Hayes, 2002; Flaxman & Bond, 2006) and coping skills programs (Frydenberg & Brandon, 2007). Participants were encouraged to use these skills throughout their lives to manage the impact of personal stressors and work and vice versa. It incorporated training in:

- A **broad range of coping skills** that could address the full range of stress symptoms and stressors (both work and personal) experienced by police;
- Appraising stressor control and selecting coping responses that fit; and
- ACT skills that promote *psychological flexibility and reduce the need for avoidance*.

Training included coping skills related to the protective systems identified by Masten and Wright (2009) (i.e. attachment relationships, problem-solving skills, self-regulation skills, agency and mastery motivation, meaning making and cultural traditions). ACT skills training covered mindfulness, acceptance and valued action, which increase the ability of individuals to notice differences in control, and to use this information to cope more effectively (Bond & Bunce, 2003; Bond et al., 2008). For example, where control does not exist over a stressor, participants were encouraged to accept the stressor and persist with valued actions, without resorting to maladaptive coping strategies. This capability is neatly captured by the famous quote: “Grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference” (Bartlett & Kaplan, 2002, p. 735). A distinction was made between internal stressors (e.g. distressing thoughts, memories and
sensations) and external stressors (e.g. difficult situations and events), based on ACT theory that controllability over internal stressors is generally poor. Participants were provided with demonstrations in ways of handling internal stressors without needing to change or avoid them. In addition, by facilitating a connection with the present moment, the skill of mindfulness was expected to enhance the ability of participants to experience positive emotions.

**Training participants**

Researchers recommend that interventions aiming to build resilience should target sensitive periods (Luthar & Cicchetti, 2000). A sensitive period for police officers is the transition from trainee to probationary officer, during which new recruits are socialized to suppress emotional expression (Paton et al., 2009), they become hardened and emotionally detached (Singleton & Teahan, 1978), and they experience increasing levels of depression and poorer mental health. This is especially so for those arriving with poor mindfulness and emotion identification skills (Williams et al., 2010). It was hoped that conducting the intervention during this transition would interrupt the socialization of avoidant coping and promote greater coping flexibility.

To ensure participants had sufficient opportunity to apply the skills it was recommended that training be conducted both before and after attestation. Unfortunately, this was not possible due to logistical challenges associated with delivering training to students working full-time and spread out across the state. The best alternative was to conduct the trial with trainees during their time at the police academy. While this was not ideal, it was hoped that the student’s study pressures and placement experience would provide sufficient opportunities to practice the skills.
Schedule

The training schedule was adapted from the "2 + 1" method of delivery used successfully by Bond and Bunce (2000). In that program participants received three half-day sessions: two on consecutive weeks and a third 3 months later (12 hours total). In order to fit in with the CSU course timetable, which is delivered in periods of two hours, the current intervention was spread over four, 110-minute workshops. Each workshop comprised a mix of group discussions, didactic teaching, private reflection and experiential exercises. While the importance of maintaining confidentiality of group discussions was emphasized to participants, written exercises were used to help participants explore issues without having to disclose to others. Homework exercises were given at the end of each workshop. While they were not monitored, the importance of these assignments was heavily emphasized. At the start of each workshop, assignments from previous workshops were reviewed and discussed, and any misunderstandings or problems were addressed.

Two trials of the intervention were conducted, the first in 2011, and the second in 2012/2013. Both trials included a control group and training group in order to assess the effectiveness of the program. While specific details about each trial are outlined in the following sections, in both cases, it was expected that mental health would be enhanced by the intervention and that mental health improvements would be mediated by coping flexibility and psychological flexibility. In particular training was expected to:

1. Lead to greater improvements across time on mental health outcome measures (general health, depression, anxiety and stress) compared to the control condition
2. Training will lead to greater improvements across time on proposed mechanisms of change (mindfulness, valued living, positive affect, psychological flexibility) compared to the control condition
3. Improvements in the outcome measures across time will be mediated by the proposed
mechanisms of change.

Pilot study – 2011

Method

Participation in this study was voluntary for students beginning session one in May 2011 at the NSW Police academy. To fit in with the rest of their police training, students participated in their tutorial groups (each having a maximum of twenty students). Twelve tutorial groups (240 students) were invited to participate in the resilience training trial, six allocated to the intervention condition (the “Training Group”), and six allocated to the Control group. All 240 students attended briefings where they were provided with an Information Form on the trial and invited to sign a consent form if they agreed to participate (See Appendix 5). While students were strongly encouraged to participate by the NSW Police Force, they were also advised that they would not be penalized if they chose not to participate. In total, 178 participants chose to participate (102 in the training group and 76 in the control group). The program outline is shown in Table 5.1.

Table 1: Program Outline – 2011 Pilot Study

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1        | • Develop participants’ understanding of stress generally including adaptive and maladaptive coping strategies.  
                         • Building participants’ awareness of what they find stressful, their typical patterns of coping and the effectiveness of those responses  
                         • Introductory ACT skills (acceptance, mindfulness, defusion) to help cope with distressing thoughts, feelings and memories without resorting to maladaptive coping strategies |

24 These tutorial groups were formed at the beginning of the session by random allocation by university administrators at the beginning of the session, with minor adjustments to group lists made to ensure a consistent gender and age mix of students across the groups.  
25 Those in the control group were offered to attend the training in 2012.
To ensure the intervention adhered to ACT principles, an experienced facilitator of ACT interventions, a clinical psychologist with experience working with police officers, was engaged to co-facilitate the training with the author. To help contextualize the content, a
current or former police officer attended each workshop and provided anecdotes. Unfortunately, the program was compromised when a NSW Police Force administrative error meant the final workshop was cancelled. As a result, no conclusions could be reached about the effectiveness of this intervention. In response to this situation, the NSW Police Force decided to run the trial again in 2012.

**Workshop feedback: The workshops were well received by the students**

- Students felt empowered to cope with future on-the-job challenges
- Students also found the skills helpful to cope with being at the academy: dealing with heavy study commitments, being away from family and friends, dealing with disappointments and making sense of their experiences on placement.
- The workshops also demystified and normalised mental health issues and encouraged students to engage proactive and workable strategies to respond to stress.

Unfortunately, almost half of the training participants withdrew from the program between the first and second workshop. The attrition of participants continued in later workshops and extended to completing the evaluation surveys. The number of participants who attended each workshop and completed each questionnaire is shown below:

- Workshop 1 (May 18/19, 2011) – 108 students
- Workshop 2 (July 27/28, 2011) - 58 students
- Workshop 3 (September 1/2, 2011) - 43 students

The most common reason given for withdrawing was study commitments which restricted the time available to undertake optional activities. The second workshop was held towards the end of session 1, when students were concerned about their exams. Many students chose to use the time allocated to resilience training (which was optional) to study for their exams. Comments from students suggested that this choice was influenced by socialization, with
students following other classmates in deciding to attend or not to attend. Analysis of the baseline data revealed that those that stayed in the program were more distressed than those who stopped attending. This suggests that resilience training was less of a priority for those that didn’t have an immediate need for it.

**Follow-up Focus group**

To improve the intervention in preparation for the next trial, ten months after the third workshop a random selection of training group participants were contacted by phone and invited to provide additional feedback on the training (see Table 5.2). Eleven recruits (6 male, 5 female) provided feedback. All were working as a probationary constable at the time.

**Table 2: Pilot study focus group feedback**

<table>
<thead>
<tr>
<th>Reflections on the program</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facilitation</strong></td>
<td>Almost all felt understood and respected by the facilitators, and felt the facilitators were credible and competent.</td>
</tr>
<tr>
<td><strong>Most helpful content</strong></td>
<td>Most frequently endorsed content:</td>
</tr>
<tr>
<td></td>
<td>- Understanding stress and the &quot;fight flight response&quot;</td>
</tr>
<tr>
<td></td>
<td>- Clarifying my values and goals</td>
</tr>
<tr>
<td></td>
<td>- Learning about Acceptance (as opposed to avoidance)</td>
</tr>
<tr>
<td></td>
<td>- Listening to former police officers relate the content back to real experiences on the job</td>
</tr>
<tr>
<td></td>
<td>- Listening to other students share their experiences on placement</td>
</tr>
<tr>
<td><strong>Reading materials</strong></td>
<td>Very few read the workbooks and coaching emails</td>
</tr>
<tr>
<td><strong>Skills practice</strong></td>
<td>Very few participants practiced the skills</td>
</tr>
<tr>
<td><strong>Impact</strong></td>
<td>Five of the 11 recruits reported that they had changed the way they cope with stress after attending the workshops</td>
</tr>
<tr>
<td><strong>Retention</strong></td>
<td>Many reported forgetting the content.</td>
</tr>
<tr>
<td><strong>Attrition</strong></td>
<td>All reported attending workshop 1, eight reported attending workshop two, and only six reported attending workshop three. The main reason reported for dropping out of the program, was that students wanted to use the time to study:</td>
</tr>
<tr>
<td></td>
<td>- “Resilience Training didn’t count towards grades.”</td>
</tr>
<tr>
<td></td>
<td>- “You had to grab every moment you could.”</td>
</tr>
<tr>
<td></td>
<td>- “It’s hard to understand relevance, we hadn’t been on the job yet.”</td>
</tr>
<tr>
<td></td>
<td>- “there was a lot of negativity towards the program because other groups didn’t have to do it.”</td>
</tr>
</tbody>
</table>

**Suggested improvements**

| Workshop timing | Most believed that the program should not be scheduled during exam periods, or in spare periods, and not on full days when students are |

228
mentally exhausted. Some believed it would have been better if they did the training in their first six months on the job.

**Police involvement**
To improve engagement, students suggested that uniformed officers should play a bigger role in the delivery

**Content**
Several believed the content should be more clearly related to policing, with less psychology jargon

**Delivery format**
A common request was to make the workshops more interactive, by including exercises, quizzes and group discussions

**Attendance**
Many believed that to make it fair attendance should be compulsory

**Rationale**
Many reported that the importance of the program needed to be clearer, with suggestions to get experienced police officers to talk about their experiences

**Encouraging practise**
Suggestions included:
- Use scenarios to get people thinking about applying the skills
- Don’t overload, simplify and focus on one thing at a time
- Relate the workshops to immediate challenges.
- Set an assignment

**Retention**
A common theme was the need for follow-up on the job, with one suggestion for senior officers to provide reminders on the job

**Discussion**

While it was not possible to make any conclusions about the trial effectiveness, it was well received by those that attended and we were able to identify a number of issues that needed to be addressed if resilience training is to have a positive and lasting impact on the wellbeing of recruits. In particular, the poor attrition rates highlighted the importance of timing. Given the demanding workload, and the amount of time and money that students invest into their training, it is not surprising that their priority was on passing their exams, and that many chose not to attend. This is especially the case for students that who were not stressed at the time, and had no immediate need.

Another potential reason for the high levels of attrition is the culture of stoicism and a resistance to expressing emotional weakness (Miller, 2008). Like the military, where more than a third of soldiers have been found to believe requesting psychological help would harm their careers (Casey, 2011), many police officers are reluctant to request help. While a universal intervention reduces the need for participants to explicitly self-identify, when
participation is voluntary, continuing to come to the program when peers drop out may be seen as a sign of weakness.

Other problems of note included a problem with retention of knowledge. Associated with poor retention was a poor level of skills practice. Part of this could have been due to not making the content relevant to police, also not making it useful for participants who were not currently stressed. Another potential reason was that there was a very large gap between workshop 1 and 2 (12 weeks).

Changes for next trial

Based on the program feedback, several changes were implemented for the next trial. The first of these was to make participation in the trial, both attending the training and completing the surveys an expected part of broader police training. The second was for the content of the program be revised with advice from experienced NSW Police officers, to make it simpler, more interactive and more relevant to policing. A third change was to change the program **schedule** to maximize engagement and retention, by:

- Delivering the first 2 workshops within a short time period (3 weeks) to maximize and reinforce learning and clarify any misunderstanding
- Moving values and goals clarification to the first workshop to make it more beneficial to non-stressed participants
- Not scheduling any workshops during the exam study period
- Including phone coaching calls to check in individually with students to address any issues that they may not be willing to discuss in the groups, and to motivate students to practice the skills
- Scheduling workshops 3 and 4 before and after placement with a focus on skills application
Improving scheduling to ensure that students are scheduled to attend the workshop

Main resilience training trial – 2012/13

Introduction

Training effectiveness

In order to justify the investment of NSW Police resources in routinely delivering resilience training it is important to assess and maximize the effectiveness of the training. The most widely applied training evaluation framework is “Kirkpatrick’s four levels”, which include:

1. Participants’ level of satisfaction with the training (reactions)
2. How much participants learned from the program (retention)
3. Changes in behaviours on the job
4. The workplace impact (Salas & Cannon-Bowers, 2001)

While reactions and retention are important indicators of effective training, the ultimate measure of success of resilience training is the prevention of stress-related issues on the job. The current trial aimed to maximize workplace impact by addressing factors that are known to be associated with “training transfer”. Training transfer refers to the process by which knowledge and skills learnt in training is applied and generalized on the job, and maintained over time (Baldwin & Ford, 1988). While the feedback from participants in the resilience training pilot study was generally positive, the focus group phone calls highlighted issues with training transfer. In particular, 12 months after attending training, many participants reported that they had not practised the skills outside of the workshops and they could not remember much of what was taught to them. If participants do not maintain the skills, the ability of training to prevent stress-related problems on the job is compromised.

26 Workplace impact cannot be assessed in the trial as participants were only followed at the academy.
Researchers have found that training transfer is shaped by factors related to the trainee (including motivation to practise, self-efficacy and perceived usefulness of training), the training design (such as having clear goals, relevant content and including opportunities to practice and obtain feedback), the organization (climate and culture) and the post training environment (supervisor and peer support for training, training follow-up) (Baldwin, Ford, & Blume, 2009; Burke & Hutchins, 2007; Grossman & Salas, 2011). The following pages review these factors and outline a range of changes to the training program that were made in the main trial with the intention of improving training transfer.

**Trainee factors related to training transfer**

A participant’s motivation to apply and generalize training is shaped by their background, including their pre-training expertise and experiences, their personality and their goal orientation (Coultas, Grossman, & Salas, 2012). Their background shapes their perceptions of whether the skills are useful, and their confidence in their ability to apply and get benefit from the skills. As a universal intervention, resilience training is delivered towards participants with diverse backgrounds leading to different levels of motivation for training. For example, if a participant’s background pre-disposes them to experience study anxiety at the academy he or she might perceive the resilience training skills as useful and be more motivated to practice the skills. Alternatively, their motivation to practice the skills might be low if they don’t find studying stressful or if they already have helpful coping skills. This means that there will inevitably be many participants at the start of resilience training who are not motivated to learn new stress management skills.

If participants remain unmotivated, it is unrealistic to expect changes in their coping behaviours and unrealistic to expect changes in mental health measures over the training period. This is especially the case for participants who are not stressed at the start of training.
(Flaxman & Bond, 2010b). However, while a police recruit may not be stressed or motivated to develop new coping skills during the training, this may change when they start the job. A participant’s motivation to learn new coping behaviours can be categorized into one of the following “stages of change” (Evers et al., 2006):

- Pre-contemplation: “I have never thought about how to cope with stress”
- Contemplation: “I am actively looking for new ways to deal with stress”
- Preparation: “I am currently learning new approaches”
- Action: “I am actively using stress management techniques day to day”
- Relapse: “I have stopped using helpful coping strategies”

Under this model, participants who start training in the pre-contemplation, contemplation and relapse stages have a low motivation to practice the skills. While other forms of police training use assessment tasks to ensure that unmotivated new recruits practice and develop new skills, this strategy is unlikely to be successful for developing new coping behaviours as coping is largely private and not visible to an outsider. A more appropriate approach for unmotivated participants in resilience training, as recommended by the trans-theoretical model (TTM) of behaviour change, is to focus their training on increasing their awareness of stress, building their motivation to take action, and making sure they know what they need to do if they want to start building the skills later (Velicer, Prochaska, Fava, Norman, & Redding, 1998).

In the main trial, coaching calls were used to tailor the training to the needs of participants in different stages. Calls with low motivated participants focused on building motivation through increasing their confidence in their ability to apply and get benefit from the skills, and by exploring the pros and cons of practicing the skills. This included addressing prior negative experiences of activities related to stress management (e.g. training, therapy, self
help books), which are known to undermine training motivation (Coultas et al., 2012). In addition to the coaching calls, motivation was built in the workshops by highlighting the immediate usefulness (using the skills to cope with study stress) and future benefits of stress management skills on the job. This was reinforced by experienced officers who attended the workshops to share their personal experiences of stress on the job and discuss how useful the skills had been to them.

**Organizational factors related to training transfer**

Training transfer is more likely to occur if the training fits with the organization’s objectives and culture (Coultas et al., 2012). This includes fitting within the broader NSW Police organizational culture and objectives, in addition to fitting with those at the police academy. A key organizational challenge for resilience training in the NSW Police Force is the stigma attached to mental health issues. Mental health conditions are seen as abnormal and associated with weakness, and many officers are reluctant to reveal information about mental health problems, believing that this might have a negative impact on their career. While this stigma is not surprising given that police need to appear strong and confident on the job, it does have consequences. Stigma makes people less likely to seek help for mental health issues (Corrigan, 2004), and by shutting down conversations about stress and coping it is also a problem for training transfer. If colleagues and supervisors do not feel comfortable discussing mental health issues in the workplace, there are fewer opportunities to reinforce new coping skills on the job. In the current trial five strategies were used to minimize the impact of stigma on training:

- By making it a requirement for all students to attend training, no one had to self identify as needing training.
- Training was framed in terms of “staying strong” instead of dealing with weaknesses.
• Experienced officers normalized the experience of psychological distress by sharing their experiences of stress on the job at the workshops.

• Training exercises were designed to ensure participants could explore the content and practice the skills in private, without having to reveal any personal struggles to their peers.

• A briefing was held with lecturers to encourage them to normalize stress and reinforce the resilience training coping skills in their classes.

**Training design factors**

The design of the training program also impacts transfer, with participants being more likely to apply the skills when there are clear goals for training, when the content is seen to be relevant and when there are plenty of opportunities for participants to practice new skills and get feedback (Coulta et al., 2012). While the long-term goal of the resilience training was to build the coping skills of new recruits and prevent the development of stress-related problems on the job, the short-term goal of training depended on each participant’s needs at the start of training. The training goals are documented at the end of this introduction.

In terms of training relevance, participants are more likely to apply the skills if they are seen as relevant. In the current trial this included relevance to both their studies and to the career path they intend to take after attestation. A challenge for students at the academy is that they haven’t been on the job so it is hard for them to assess the relevance of the skills. In order to maximize the job relevance, the training content was updated with the help of experienced officers to focus on how these skills could be helpful on the job. In terms of study relevance, students were encouraged to use the skills to help them deal with study stress and improve their productivity.
Given the well established role of practice in skill acquisition and training transfer (Coultas et al., 2012), additional practice exercises were incorporated into the workshops in the main trial. These included experiential exercises in which participants would practice a new skill, the use of scripted scenarios to get participants thinking about how they would approach different situations, and quizzes at the end of the workshops to reinforce new knowledge. Students were provided constructive feedback at the end of each exercise.

An especially beneficial practice opportunity is homework, which acts as a generalization and maintenance strategy by facilitating the application of new skills away from the training context. While compliance with homework has been related to improved treatment outcomes in psychotherapy (Kazantzis, Deane, & Ronan, 2000), rates of homework compliance, like medication adherence, are often poor. In the resilience training pilot study many participants reported not completing homework tasks, and in the absence of skills maintenance strategy, it was not surprising that these participants also reported forgetting the training content. Drawing on the homework compliance literature (Detweiler & Whisman, 1999), the following changes were made in the main trial to improve homework compliance:

- **Task changes:** Homework exercises were updated to make them easier for participants to complete (e.g. creating model diagrams and handouts and sending email and SMS reminders with links to listen to guided audio exercises);
- **Trainee related changes:** To build participant motivation, time was taken in the workshops and coaching calls to explain the rationale for homework and adapt homework tasks to each participant’s immediate needs. Participants were also encouraged to develop their own homework activities and goals;
- **Facilitator changes** included setting clear instructions and using the coaching calls to demonstrate enthusiasm for homework tasks, recognizing and providing feedback on task completion.
In the pilot study the two most common responses provided by participants to the question of why they did not complete homework were competing priorities and the absence of stressors. Given that resilience participants have different needs and priorities, the required homework was kept at a minimum, focused mainly on ensuring that they were familiar with the exercises and that they knew where they could go to practice. Beyond this they were encouraged to practice the skills at their own pace.

**Factors related to the post-training environment**

In addition to characteristics of the trainee, organization, and training design, the post-training environment also plays an important role in shaping training transfer. This is especially the case for resilience training, which aims to prepare participants to cope with stressors after starting the job. One factor that could not be changed in the current trial was the delay between training and starting the job. In the main trial, there was at least four months after the completion of training before participants started the job. Given that training effects are known to dissipate over time, if participants forgot the skills before they experience stressors on the job the training efforts would be wasted.

Training transfer is more likely to occur in the post-training environment when supervisors and peers are able to support trainees and reinforce new skills on the job (Coultas et al., 2012). With resilience training, given that the rest of the organization has not received the training, it is unlikely that supervisors and peers will be in a position to reinforce the training. It is also possible that stigma on the job towards mental health issues and help seeking may act to undermine the training. While a formal evaluation of the state of the post-training environment has not been conducted, reports from pilot study participants indicate that some work environments are unsupportive. The post-training work environment was not addressed in the main trial. It is something that should be addressed in the future.
An alternative way of promoting transfer in the post-training environment is to use performance aids, that is, tools that help participants to remember key knowledge and practice the skills (Coultas et al., 2012). Performance aids reduce the amount of time required during the training period as they allow for skills and knowledge to be developed later as needed. They are particularly attractive in a universal intervention for participants in early stages of change, who are not yet ready to apply the skills. They are also attractive in a time-constrained environment like the police-training program.

Performance aids can also be built using technology, an example being the PTSD Coach smartphone App, built by the US Veteran affairs department which helps military service members practice skills for coping with PTSD. Such technology offers the potential to build a more personalized, feature rich, convenient and private performance aid. The App could also make it even easier to complete homework during the training, and make it easy for participants who move into an action stage after the training period to practice the skills. It offers opportunities to improve homework compliance and for learners to learn at their own pace. Furthermore, findings that military service members are more willing to access support using technology as opposed to support involving a person (Wilson, Kristin Onorati, Mishkind, Reger, & Gahm, 2008) suggest that the ability to explore mental health issues anonymously and in private could help overcome stigma barriers to help seeking.

In the main trial the challenge of maintaining the skills in the absence of training reinforcement from peers and supervisors was addressed in the final coaching call. Participants were provided with a basic performance aid, in the form of a Powerpoint overview of the main concepts and skills. They were encouraged to look at this whenever they had a need to refresh or practice the skills. While it was not possible to build a more
sophisticated performance aid in the main trial, participants were asked a number of questions to assess whether they would be willing to use a smartphone application for this purpose.

**Trial expectations**

In summary, several changes have been made to the training program to increase transfer and maximize the potential of training to prevent stress-related problems on the job (See figure 2). The expectations of training were as follows:

12. **Reactions**
   - Participants are expected to report that the training is helpful, including both the workshops and the learning supports (coaching calls, audios, reminders)

13. **Knowledge retention**
   - Participants are expected to be able to explain key training concepts including the stress response, resilience, and helpful and unhelpful ways of coping. They were also expected to know where to go for support.

14. **Attitudes**
   - The training aims to normalize and reduce stigma associated with stress and increase the confidence of participants to cope with stress

15. **Motivation to practice** and change
   - Participants will begin training with different levels of motivation to change
   - Participants are expected to become more motivated to practise stress management skills during training, as reflected by shifts from pre-contemplation and contemplation stages of change to preparation and action stages.

16. **Skills**
Participants will be able to notice when they experience stressors and stress symptoms, and when they engage in unhelpful coping habits. They are also expected to be able to select and demonstrate a range of helpful coping skills.

17. *Behaviour change* during training

- Participants in the preparation, action and maintenance stage of change at the start of training are expected to be more likely to complete homework and practise the skills than participants in the pre-contemplation and contemplation stages.

18. *Mental health outcomes* during training

- Improvements in mental health are expected during the training period only for participants who are distressed at the start of training, and who practise the skills.
- For the overall sample, higher levels of coping skills (mindfulness, adaptive coping, valued living and acceptance) will be related to improved mental health.

19. *Behaviour change* on the job

- Training is expected to increase the likelihood that participants will practise the skills on the job when they experience stress, especially for participants who were in the pre-contemplation and contemplation stages of change at the start of training.
- *Note:* The impact of training on participants’ coping behaviours on the job cannot be assessed as participants were only followed at the academy.

20. *Mental health changes* on the job

- By equipping participants with skills and by motivating them to practise these skills, training is expected to help participants cope more effectively with stress when it arises on the job, leading to reductions in stress-related problems.
- *Note:* The prevention of stress-related problems on the job cannot be assessed in this trial because participants were only followed at the academy.
Figure 2: Overview of Training Effectiveness
Method

Participants

Participants were CSU students studying the Associate Degree in Policing Practice (ADPP) at the NSWPF academy in Goulburn. The trial included a control group comprising all students commencing session 1 of the ADPP in May 2012 and a training group, comprising students commencing session 1 in January 2013. Both groups were provided a similar survey (See Appendix 5) on three occasions: pre-intervention (time 1), immediately before workshop 4 (time 2), and medium term follow up (time 3). The surveys were administered at an equivalent stage for both the control and training groups (e.g. Time 1 was administered in week 1 of session 1). As per the recommendations from the pilot study, completion of the surveys was compulsory for all students in the cohort, with students having the option to opt out from having their data included in the research. To encourage honest responding, responses were anonymous.

While 279 control group participants (average age = 26) and 47 training group participants (average age = 25) completed the first survey, only 31 training group participants and 159 control group participants could be tracked across time (See figure 5.3). The reduction in sample size was partially due to participants answering the unique code questions differently (meaning their data could not be matched across time), and partially because some participants chose to exclude their data at later times. The training group was much smaller than the control group due to a significant reduction in student numbers in the January 2013 intake.

Measures

Demographic questions: Participants were asked to provide information about their gender, relationship status, education, and prior exposure to stress management. In order to protect
anonymity participants were also asked to provide information to generate a participant code that was used to linked participants responses across time.

**Mental health measures**

- **The Depression Anxiety and Stress Scale** (Lovibond & Lovibond, 1995) was administered to provide independent measures of anxiety and depression.
- **The General Health Questionnaire-12 (GHQ)** (Goldberg, 1978) was administered to measure general mental health (McDowell & Newell, 1996). Higher scores indicate greater psychological distress and mental ill-health.
- **Perceived Stress scale** (Cohen & Williamson, 1988) (PSS) was administered to measure the degree to which individuals have been appraising situations in the last month as stressful.
- **PTSD Checklist** (Weathers, Huska, & Keane, 1991) was administered to measure symptoms of PTSD.

**Coping measures**

- **Acceptance and Action Questionnaire-II (AAQ-II)** (Bond et al., 2011) was administered to measure an individual’s level of experiential avoidance. Higher scores indicate greater psychological inflexibility.
- **Brief COPE** (Carver, 1997) The Brief COPE was administered to measure what participants have been doing to cope with stress over the past 2 months, under 14 subscales: (a) Active Coping, (b) Planning, (c) Positive Reframing, (d) Acceptance, (e) Humor, (f) Religion, (g) Using Emotional Support, (h) Using Instrumental Support, (i) Self-Distraction, (j) Denial, (k) Venting, (l) Substance Use, (m) Behavioral Disengagement, and (n) Self-Blame. Based on evidence that these factors tend to be either generally adaptive or problematic, the scale was also used to create sub-measures of adaptive and maladaptive coping (Carver, 1997).
• **Mindfulness** (Brown & Ryan, 2003) (MAAS) was used to measure “individual differences in the frequency of mindful states over time” Higher scores on the MAAS indicate a greater tendency towards mindful awareness.

• **Values progress** (Smout, 2012) was used to assess an individual’s ability to live consistently with their values. Higher scores indicated greater success at living consistent with values.

• **Stage of Change algorithm** (Evers et al., 2006; Velicer et al., 1998) was used to determine which stage of change for stress management practices participants were in before and after training. Participants chose from one of six response categories: not stressed, pre-contemplation (not intending to begin in the next 6 months), contemplation (intending to begin in the next 6 months), preparation (intending to begin in the next 30 days), action (practicing the behavior, but for less than 6 months) or maintenance (practicing the behavior for at least 6 months).

**Intervention**

Participants in the training group attended four resilience training workshops. Specifically, workshops one, two and three occurred in Weeks 2, 4 and 12 of session one and workshop four occurred in Week 1 of Session two. Overall, it took participants 16 weeks to complete the full program. The maximum number of participants in any single workshop was 16 and minimum was ten. To reinforce and personalize the learning, two 30 minute coaching calls were conducted, one after workshop 2, and the other following workshop 4.

The training program included psycho-education about stress and resilience, together with training on the use of a range of coping skills, and on how to select helpful skills for different situations. To assist with application, coping skills were categorized and integrated into a
selection guide. At the highest level, coping skills were categorized as strategies for coping with either symptoms or stressors. Stressor strategies were further broken down into strategies for changing the stressors (action strategies), strategies for accepting stressors (acceptance strategies) strategies and strategies for conflict resolution. Given the role of stress and negative emotion on narrowing thinking, participants were encouraged to engage strategies for dealing with stress symptoms before dealing with stressors. To identify the best way of coping with stressors, they were taught to appraise stressor controllability, before engaging action strategies for high-control stressors, and acceptance strategies for low-control stressors. An outline of the content in each workshop is provided in Table 5, with workshop slides and handouts contained in Appendix 1 – which is in the Report Supplementary Appendix on the accompanying Drive.

Workshops one to three had two facilitators, while the final workshop had only one facilitator. Homework included worksheets to monitor stress and coping, and between workshop 1 and 2, participants were send text messages and emails with links to audio recordings of guided muscle relaxation, mindfulness and abdominal breathing exercises. While attendance in training was considered part of their course, participation in exercises (both in class and outside of class) was voluntary and not monitored.

---

27 The categories of action strategies and conflict resolution strategies resemble the category of problem-focused coping, with symptom and acceptance strategies resembling emotion-focused coping.
Figure 3. Study Timeline and participant completion
**Program Feedback**

At the end of each workshop, participants rated how helpful the workshop had been in teaching them new ways to cope with stress and frustration on a Likert scale ranging from “Not very helpful” (1) to “Very helpful” (5). They were also asked to comment on what they found most beneficial about the workshop and to make suggestions to improve the workshop. In the final coaching call, participants were asked for comments on the overall program.

At the end of the third workshop, participants were asked to rate the helpfulness of, and provide comments on, the learning supports (guided audio recordings, SMS reminders, email reminders and the coaching phone call). In addition to the questions on existing learning supports, participants were asked in the first survey whether they would be willing to use a smartphone App for stress management. At the end of the third workshop, participants were prompted with the following question: “A psychological fitness smartphone application could be developed to go along with the training to make it easy to for officers to develop new coping habits and engage helpful coping strategies when stressed. Do you think such an application would be helpful?”

**Table 3: Program Outline – 2012/2013 Study**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop 1</td>
<td>• Stress education (distinction between triggers and symptoms, the fight flight response, chronic stress problems)</td>
</tr>
<tr>
<td></td>
<td>• Values clarification and how values relate to stress</td>
</tr>
<tr>
<td></td>
<td>• Resilience and coping</td>
</tr>
<tr>
<td></td>
<td>• 5 strategies for recovering from stress symptoms (mindfulness, breathing, muscle relaxation, physical exercise and emotional)</td>
</tr>
</tbody>
</table>
| **Homework** | • Log stress level/triggers/symptoms and coping responses  
| | • Audio recordings (Listen to mindfulness, abdominal breathing, muscle relaxation recordings each night for 10 nights) |
| **Workshop 2** | • Dealing with stressors  
| | • The alternative to control  
| | • Coping flexibility – Acceptance and Action  |
| **Coaching call** | • Reinforce skills introduced in workshop 1 and 2 |
| **Homework** | • Once a week, review stressors and stress symptoms, practise stress recovery, take action on controllable stressors, and acceptance on low control stressors |
| **Workshop 3** | • Dealing with interpersonal conflict, skills for helping others  
| | • Preparing for placement – applying the resilience model to a range of potentially stressful scenarios (fatal accident, arrest for sexual assault, busy shift, death message) |
| **Workshop 4** | • Commenced with completing survey 2  
| | • Placement debriefing (reflections on personal experiences, identifying difficult experiences and exploring strategies used to handle them)  
| | • Program review (the three steps to resilient coping – notice when you get stressed, strategies to calm down and gather your thoughts, strategies to deal with the stressor) |
| **Coaching call 2** | • Reinforce overall training, with a focus on understanding the skills and discussing motivation to practise. Also obtained feedback on program, was it easy to apply the skills. |
**Results**

Table 4: Participant characteristics at Time 1

<table>
<thead>
<tr>
<th></th>
<th>Control (N=280)</th>
<th>Training (N=47)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>78</td>
<td>28%</td>
</tr>
<tr>
<td>Male</td>
<td>202</td>
<td>72%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>35</td>
<td>13%</td>
</tr>
<tr>
<td>Completed a Diploma or Associate</td>
<td>27</td>
<td>10%</td>
</tr>
<tr>
<td>Completed Year 12</td>
<td>109</td>
<td>39%</td>
</tr>
<tr>
<td>Trade</td>
<td>90</td>
<td>32%</td>
</tr>
<tr>
<td>Before Year 12</td>
<td>13</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Prior exposure to stress management training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Face to Face Counselling</td>
<td>29</td>
<td>10%</td>
</tr>
<tr>
<td>Self help books</td>
<td>17</td>
<td>6%</td>
</tr>
<tr>
<td>Workshops</td>
<td>13</td>
<td>5%</td>
</tr>
</tbody>
</table>

Participant demographics are shown in Table 5.4. Unfortunately due to the small sample size for the training group, and the inability to control for confounding factors such as weather (the training group were followed as they went into winter, while the control group went from winter to summer), it is not possible to make conclusions about the impact of the training on participants who were distressed at the start of training. This is especially the case given that very few training participants were distressed at the start of training. Secondly, it cannot be concluded that training led to coping behaviour changes for participants in the preparation, action and maintenance stages of change at the start of training. Once again this is because there were too few training participants in these stages at the start of training. While it cannot be concluded that the training led to these improvements
due to the sample size, the correlations at Time 1 indicate that the relationships between the coping variables targeted by the intervention and the mental health outcomes were significant and in the expected directions.

**Descriptive Statistics**

On the Depression (DASS-D) subscale, at Time-point 1, training group (TG) participants scored an average of 1.7 (range from 0 to 9) and control group (CG) participants scored an average of 1.8 (range from 0 to 15), with both scores falling in the normal (non-distressed) range for depression (Lovibond & Lovibond, 1993). At Time-point 3, the average depression scores were slightly higher for both groups (CG = 3.3; TG = 3.6), but both remained in the normal range.

On the Anxiety (DASS-A) subscale, at Time-point 1, TG participants scored an average of 2.6 (range from 0 to 11) and CG participants scored an average of 2.4 (range from 0 to 16), with both scores falling in the normal (non-distressed) range for anxiety (Lovibond & Lovibond, 1993). At Time-point 3, the average anxiety scores were slightly higher for both groups (CG = 2.9; TG = 4.2), but both remained in the normal range.

On the General Health Questionnaire (GHQ-12) scale, at Time-point 1, TG participants scored an average of 7.7 (range from 0 to 19) and CG participants scored an average of 8.8 (range from 0 to 30). At Time-point 3, the average GHQ-12 scores were slightly higher for both groups (CG = 12.5; TG = 12.1).

On the Perceived Stress Scale (PSS), at Time-point 1, TG participants scored an average of 12.9 (range from 3 to 20) and CG participants scored an average of 13.2 (range from 1 to 27).
At Time-point 3, the average PSS scores were slightly higher for both groups (CG = 15.2; TG = 16.9).

On the PTSD Checklist (PCL-C) scale, at Time-point 1, TG participants scored an average of 23.4 (range from 17 to 52) and CG participants scored an average of 22.3 (range from 17 to 51). At Time-point 3, the average PCL-C scores were slightly higher for both groups (CG = 26.0; TG = 28.1).

On the AAQ-II scale, which measures experiential avoidance, at Time-point 1, TG participants scored an average of 12.3 (range from 7 to 24) and CG participants scored an average of 11.7 (range from 7 to 34). At Time-point 3, the average AAQ-II scores were slightly higher for both groups (CG = 11.9; TG = 13.7).

On the Adaptive coping scale, at Time-point 1, TG participants scored an average of 33.5 (range from 16 to 56) and CG participants scored an average of 30.3 (range from 16 to 56). At Time-point 3, the average Adaptive coping scores were higher for both groups (TG = 37.9; CG = 32.1).

On the Maladaptive coping scale, at Time-point 1, TG participants scored an average of 16.8 (range from 12 to 27) and CG participants scored an average of 15.8 (range from 12 to 28). At Time-point 3, the average Maladaptive coping scores were slightly higher for both groups (TG = 19.2; CG = 17.4).

On the Mindfulness scale, at Time-point 1, TG participants scored an average of 4.44 (range from 1.73 to 6) and CG participants scored an average of 4.62 (range from 2.07 to 6). At
Time-point 3, the average mindfulness scores were slightly lower for both groups (TG = 4.28; CG = 4.46).

On the Values progress scale, at Time-point 1, TG participants scored an average of 19.2 (range from 6 to 24) and CG participants scored an average of 18.8 (range from 4 to 24). At Time-point 3, the average values progress scores were slightly lower for both groups (TG = 18.8; CG = 16.8).

**Correlations between variables**

The relationships between variables at Time 1 (see Table 5.5) were as expected, with increases on measures of psychological distress (Depression, Anxiety, GHQ-12, Stress and PTSD) all being strongly positively correlated to coping behaviours discouraged in the intervention (maladaptive coping and increased avoidance (AAQ-II)) and largely negatively correlated to increases in the coping behaviours promoted by the intervention (mindfulness and valued living). While adaptive coping was also positively correlated to increased distress, the correlations were smaller than for maladaptive coping. This is consistent with distress causing participants to more actively engage coping strategies, with only maladaptive coping causing further distress. While the small sample size means that it cannot be concluded that the training changes the coping behaviours and mental health, these relationships confirm that the intervention targets are related to improved mental health outcomes as expected.

**Table 5: Correlations and descriptive statistics for overall sample at Time 1**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Depression</td>
<td>.61**</td>
<td>.62**</td>
<td>.53**</td>
<td>.52**</td>
<td>.47**</td>
<td>.23**</td>
<td>.42**</td>
<td>-.32**</td>
<td>-.22**</td>
</tr>
<tr>
<td>2</td>
<td>Anxiety</td>
<td>.53**</td>
<td>.48**</td>
<td>.63**</td>
<td>.56**</td>
<td>.29**</td>
<td>.44**</td>
<td>-.44**</td>
<td>-.20**</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>GHQ-12</td>
<td>.46**</td>
<td>.47**</td>
<td>.42**</td>
<td>.27**</td>
<td>.44**</td>
<td>-.38**</td>
<td>-.25**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>PSS (Stress)</td>
<td>.43**</td>
<td>.52**</td>
<td>.20**</td>
<td>.44**</td>
<td>-.35**</td>
<td>-.27**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>PTSD</td>
<td>.59**</td>
<td>.36**</td>
<td>.52**</td>
<td>-.48**</td>
<td>-.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>AAQ-II (Avoidance)</td>
<td>.41**</td>
<td>.65**</td>
<td>-.54**</td>
<td>-.22**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

252
<table>
<thead>
<tr>
<th></th>
<th>Adaptive Coping</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td></td>
<td>.66**</td>
<td>-.37**</td>
</tr>
<tr>
<td>8</td>
<td>Maladapt. Coping</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.50**</td>
<td>-.12*</td>
</tr>
<tr>
<td>9</td>
<td>Mindfulness</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.11*</td>
</tr>
<tr>
<td>10</td>
<td>Values progress</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p<.01, *p<.05; two-tailed
Changes in stage of change for the training group

Consistent with expectations, of the 29 participants that responded to the question about stage of change, at the start of training the majority were not in a stage of action, with the largest group (n = 11) being in a pre-contemplation stage (See Figure 5.4). In comparison, by the end of training, the majority of participants were in an action stage, with the largest group (n = 10) being in the action stage. This shows that for a large group of participants, the training motivated them to start taking care of their mental health. If these participants can maintain this change, and keep practising the skills on job, it is expected, that the impact of job stress will be reduced, meaning they will be less likely to develop chronic stress problems.

![Stages of Change](image)

Figure 4: Categorisation by stage at Time 1 (Top) and Time 3 (Bottom)
**Workshop feedback**

As shown in Table 6, more participants were satisfied than unsatisfied in the first three workshops, with the final workshop being seen as the least helpful. The reduction in satisfaction may be due to the fact that workshops 1 and 2 presented mostly new content, while workshops 3 and 4 were focused on application of the skills. It would not be surprising for participants who are not yet motivated to apply the skills to be frustrated when attending workshops focused on application. The comments highlighted the diverse needs of participants in the group. Common suggestions across the workshops were to reduce the length of the workshops and to make them more interactive.

**Table 6: Workshop feedback ratings**

<table>
<thead>
<tr>
<th></th>
<th>1 (Not Helpful)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 (Very Helpful)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop 1 (n=54)</td>
<td>1 (2%)</td>
<td>4 (7%)</td>
<td>14 (26%)</td>
<td>23 (43%)</td>
<td>12 (22%)</td>
</tr>
<tr>
<td>Workshop 2 (n=34)</td>
<td>0 (0%)</td>
<td>1 (3%)</td>
<td>14 (41%)</td>
<td>11 (32%)</td>
<td>8 (24%)</td>
</tr>
<tr>
<td>Workshop 3 (n=52)</td>
<td>3 (6%)</td>
<td>5 (10%)</td>
<td>24 (46%)</td>
<td>14 (27%)</td>
<td>6 (12%)</td>
</tr>
<tr>
<td>Workshop 4 (n=36)</td>
<td>7 (19%)</td>
<td>10 (28%)</td>
<td>8 (22%)</td>
<td>9 (25%)</td>
<td>2 (6%)</td>
</tr>
</tbody>
</table>

28 Due to time constraints feedback forms were not collected for one class in both workshops 2 and 4
Figure 5: Feedback ratings for each workshop

**Workshop 1 Comments**

- Most students found it beneficial to learn practical ways of coping with stress.
- Some students also found it helpful to reflect on the ways that they cope.
- The most commonly endorsed technique was breathing, followed by muscle relaxation and then mindfulness.
- The most common improvement suggestions were to reduce the length of the workshop and increase the number of practical and interactive exercises.
- A few students also suggested including more breaks.

**Workshop 2 Comments**

- Most students found it beneficial to identify their stressors and learning ways to deal with them.
- Several respondents specifically identified learning acceptance and action strategies.
• The most frequent suggestion for improvement was to make the workshop shorter, followed by making it more interactive.

**Workshop 3 Comments**

• Many students found applying the skills to the scenarios helpful.
• Many appreciated the experienced officer sharing his experiences of the job.
• Some students were disappointed that the workshop was in the middle of a study period.
• While several noted that the workshops had become more interactive, many others made suggestions that it needed to be even more interactive, with more scenarios, group discussions, videos and role-plays.
• Once again students reported a desire for the workshops to be shorter. One person commented that the conflict resolution content should complement, without repeating, material covered in the communications course.

**Workshop 4 Comments**

• Students commented that the revision was helpful especially the techniques of mindfulness, muscle relaxation and breathing.
• Consistent with earlier workshops, students reported a desire for the workshops to be shorter and to be more interactive.

**Helpfulness of learning supports**

As shown in Table 5.7, participants generally found the current learning supports helpful. The most helpful support was the coaching calls, followed by the audio recordings and SMS reminders, followed by the email reminders. Participants commented that they wanted more audios, including shorter and faster paced audios. Participants reported that the smartphone App would be more helpful than the current learning supports, with 30 of 43 participants (66%) rating it as helpful. This was consistent with responses at the start of training in which
28 out of 46 participants (60%) responded that they would use a smartphone App to practise and learn new ways of managing stress.

Table 7: Feedback on learning supports

<table>
<thead>
<tr>
<th></th>
<th>1 (Not Helpful)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 (Very Helpful)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio recordings</td>
<td>5 (10%)</td>
<td>13 (26%)</td>
<td>13 (26%)</td>
<td>14 (28%)</td>
<td>5 (10%)</td>
</tr>
<tr>
<td>SMS reminders</td>
<td>4 (8%)</td>
<td>13 (26%)</td>
<td>17 (34%)</td>
<td>10 (20%)</td>
<td>6 (12%)</td>
</tr>
<tr>
<td>Email reminders</td>
<td>6 (12%)</td>
<td>14 (28%)</td>
<td>17 (34%)</td>
<td>8 (16%)</td>
<td>5 (10%)</td>
</tr>
<tr>
<td>Coaching calls</td>
<td>4 (8%)</td>
<td>7 (14%)</td>
<td>19 (38%)</td>
<td>12 (24%)</td>
<td>8 (16%)</td>
</tr>
<tr>
<td>Smartphone App</td>
<td>2 (4%)</td>
<td>5 (11%)</td>
<td>8 (18%)</td>
<td>16 (36%)</td>
<td>14 (31%)</td>
</tr>
</tbody>
</table>

Figure 5.6. Feedback ratings by learning support
**Practise frequency**

Participants were also asked how often they had been practicing the skills. As shown in figure 5.7, at Time-point 2 (in the final workshop), 21 out of 34 (62%) responded that they had been practising either sometimes or fairly often. However, by Time-point 3 (12 weeks later), this had dropped to 12 out of 30 (40%). While part of this drop off may have been due to a lack of need to practice coping skills because they were not stressed, it is also likely to be due to the absence of follow-up strategies during this time.

![Figure 7: Practise frequency at Time 2 (left) and Time 3 (right)](image-url)
Comments on the overall program (as reported in the final coaching call)

• “The course was well run and I understood the main concepts.”

• “I realised once we started doing practical exercises that the course was important - I can now see why I shouldn't cope with things by bottling them up.”

• “I understood the techniques and will use them in the future. I know that coping with stress is an important part of policing now.”

• “I was disappointed that some of my peers didn’t respect the program. They just don’t see it as relevant to their situation. Maybe it should be done at the station, when they might understand why it is needed.”

• “I have my own methods of coping with stress – I would have preferred not to attend”

• “There should be more police involvement”

• “The theory part at the beginning was boring.”

• “The timing of the course was difficult. Friday afternoons were a struggle.”

• “Don’t schedule it during exams.”

• “The course was better when we were moving around rather than sitting still.”

• “It would be good to have more hands on activities.”
Summary

- Overall participants found the training helpful, with helpfulness ratings better than in study 1. Participants found workshops 3 and 4 less helpful than workshops 1 and 2.

- Participants demonstrated in the quizzes and on the coaching calls that they generally understood and remembered the key concepts.

- As expected, the stages of change question indicated that participants started the program with different levels of motivation. This was backed by diversity in the workshop comments with many students being satisfied while others wanted the course to be shorter.

- Motivation increased over the course of training, as indicated by several participants moving from pre-contemplation towards a stage of action in terms of using stress management skills.

- Practice levels dropped off after the completion of the workshops.

- Participants also found the learning supports helpful, especially the coaching call. They also expressed that a smartphone application for practicing the skills would be helpful, and that they would be willing to use it.

- Coaching conversations revealed variation in the skill levels of participants.

- Due to the small size of the training group, and the inability to control for confounding factors, it is not possible to make claims about the impact of training on participants’ coping behaviours and mental health during the training period.

- The relationships between measures of coping behaviours and the mental health measures were significant and in the expected directions.

- The long term impact of the training cannot be assessed in the trial as participants were only followed at the academy.
Recommendations

1. Maintain compulsory attendance
   - Keeping in mind the impact of workload and stigma on reducing attendance when the program was voluntary (in the pilot study), it is recommended that attendance in resilience training remain mandatory.

2. Reduce the gap between resilience training and starting the job
   - Long gaps between attending training and experiencing stress on the job increase the likelihood that participants will forget the skills. To maximise training transfer, the workshops should be scheduled closer to starting the job.

3. Reduce the length of training
   - Many participants in a universal, mandatory resilience training program are not looking to, or ready to change their coping behaviours. Therefore, to avoid wasting time and resources, the length of the program should be reduced to the essential content delivered in two workshops spaced close together.

4. Refine the workshop content
   - The two workshops should include a refined version of the existing workshops 1 and 2, incorporating the interpersonal skills content from workshop 3.
   - The focus of the workshops should be on building a common language around stress and ways of coping, normalising stress, developing an awareness of a broad range of coping skills, motivating participants to build better coping habits and orienting participants to tools that they can use to practise these skills and where they can get more information and support when they have a need.
   - Between the two sessions, participants should be required to practise a range of different skills.
5. *Training should be tailored to individual needs*
   - Provision should be provided for participants to address their unique needs
   - Participants should be required to complete a simple self-assessment (including strengths, weaknesses and motivation to change)
   - The output from the self-assessment should be a list of tailored activities that they can independently complete to become more resilient (including activities to build motivation if necessary)
   - Tailored activities should be able to be done in private

6. *Coaching calls*
   - While participants valued the coaching and it helped to tailor the program to the needs of each participant, coaching is time intensive and it would be difficult to conduct on a larger scale. If coaching is to stay in the program, to be effective it needs to have a clear focus, such as on actioning the output of a self-assessment.

7. *Address stigma in the broader organisation*
   - To be successful, the training must fit with the organisational culture. Stigma related to having mental health challenges puts resilience training at odds with the NSW Police Force culture. It reduces the likelihood that officers seek help, stops communication, and prevents colleagues from offering support. It also reduces the likelihood that officers pay attention to the content.
   - It is recommended that the NSW Police Force introduce an organisation wide campaign to reduce stigma, normalise stress and encourage help seeking. Two appropriate strategies for diminishing stigma are education and contact (Corrigan, 2004). Contact refers to highlighting officers with stress-related problems who are able to hold down their job, encouraging these officers to share how they have coped.
8. **Led by the organisation**
   - For resilience training and any stigma reduction effort to be effective, it needs to be driven and co-facilitated by experienced police officers that are natural leaders in the organisation. That is people who other officers are influenced by.

9. **Improve post-training support**
   - In order for supervisors and peers to be able to reinforce skills taught in resilience training, established officers need to be provided training on supporting colleagues under stress. This should include a briefing on resilience training and encouragement for supervisors to reinforce the training with new recruits.

10. **Develop a more sophisticated performance aid**
    - To help officers tailor the training to their own needs, and to refresh their skills as required, it is recommended that a sophisticated performance aid is developed that makes it easy for participants to practise the skills in private.
    - To maximise adoption, any performance aid should be introduced during the workshops to ensure that participants are familiar with using it.

11. **Research**
    - In order to measure the impact of the resilience training on participants’ long-term coping habits and mental health, further research will need to be conducted following participants up over several years on the job.
    - To be able to make claims of effectiveness, such a longitudinal study would require a randomly assigned training and control group, that are matched in terms of demographic makeup, with mental health and coping measured at same times.
APPENDIX 1

*Power Point slides and Workbooks may be found in the Supplementary Report Appendix on the accompanying USB Drive.*
References for Chapter 5


269


McCaslin, S. E., Inslicht, S. S., Metzler, T. J., Henn-Haase, C., Maguen, S., Neylan, T. C.,
Disorder Symptoms in a Prospective Study of Urban Police Officers. *The Journal
of Nervous and Mental Disease, 196*(12), 912-918.


Muller, J., MacLean, R., and Biggs, H. C. (2009). The impact of a supportive leadership
program in a policing organisation from the participants' perspective. *Work: A


O'Brien, T. B., and DeLongis, A. (1996). The Interactional Context of Problem, Emotion, and

inoculation training and job performance. *Journal of Police Science &
Administration.*


psychological functioning in law enforcement officers *Journal of Police and
Criminal Psychology, 21*(1), 41-53.


Patterson, G. T. (2003). Examining the effects of coping and social support on work and life


Acceptance and commitment therapy: A meta-analytic review. *Psychotherapy and
Psychosomatics, 78*(2), 73-80.


Appendix 2

Study 1 Materials
**Information Sheet**
Department of Psychology, Australian National University

**Project Title:** Stress resilience and life effectiveness training for police recruits

**Investigators**
Mr Chris Horan  
Department of Psychology, christopher.horan@anu.edu.au  
Prof Don Byrne (Supervisor)  
Department of Psychology, don.byrne@anu.edu.au  
Dr Linda Bilich  
School of Psychology, University of Wollongong, lindab@uow.edu.au  
Prof Seumas Miller  
Centre for Applied Ethics and Public Ethics, seumas.miller@anu.edu.au

**Aims of the project**

This project is fully supported by the NSW police force and the NSW police association. The aim of the project is to evaluate the effectiveness of a group training program designed to develop stress resilience in police officers.

If you choose to participate, you will either be invited to attend training beginning in May 2011, or you will be placed on a waiting list to attend training in April 2012. The training program has been designed based on the specific needs of the NSW police and draws on recent research into stress, resilience, and coping strategies. It will incorporate a range of skills that are expected to enable officers to cope more effectively with stress and to improve their mental health and well-being. The training will be conducted in groups, delivered in four sessions over a six month period, each of two hours duration. Between each session you will be encouraged to practice the skills.

Each participant will be asked to complete a 20 min on-line questionnaire at four time points over a 10 month period (May, August and November 2011, and March 2012). The questionnaire will ask about your experiences of stress, psychological distress and your use of coping strategies.

**Right to Withdraw**

Your participation in this project is voluntary and you may withdraw consent to participate and discontinue your participation at any time until the data is processed. You may also withdraw any unprocessed data previously supplied.

**Confidentiality Procedures/ Data use and storage**

Information will always be summarised at group level so it will not be possible to identify individuals who have participated in the research. All completed paper questionnaires will be stored in locked filing cabinets and all data will be stored on secure file servers. Furthermore it will be a requirement that all discussions conducted during training not be shared beyond the training room. No information specific to individual officers will be released to the NSW police or NSW police association, so far as the law allows. The findings from this research will be summarised and presented to the NSW police and NSW police association. They will also be presented at conferences and in scholarly journals in the fields of clinical psychology, occupational health psychology and policing.

**Further Assistance**

If you would like further information about this research, please contact the investigators listed above. If you experience distress during the course of the training, you should contact Lifeline on 131114 or CSU support services: www.csu.edu.au/division/studserv/counselling/online-counselling.htm

Padre Robinson, 0421 052 069, room C212
Estelle Anderson, 0419 658 508, 199 Bourke Street, Goulburn.

If you have any concerns regarding the conduct of this research please contact:
The Secretary, ANU Human Research Ethics Committee, Research Office, Australian National University, ACT, 0200, Australia. Phone: (61-2) 6125 7945. Email: human.ethics.officer@anu.edu.au
Workshop 1

Investigators

Mr Chris Horan
School of Psychology, Australian National University

Prof Don Byrne
School of Psychology, Australian National University

Dr Linda Bilich
School of Psychology, Australian National University

Prof Seumas Miller
Charles Sturt University

Program Objective

"Learn new strategies to respond to adversity"

Difficult people and situations

Difficult thoughts, feelings, memories and sensations

Goal setbacks

"Develop stress resilience"

Training Schedule

Four, 2 hour workshops

January (week 1, session 1)

February (week 3, session 1)

April (week 13, session 1 - pre-placement)

May (week 1, session 2 - post-placement)

Between each session

Read the coaching emails, apply the skills

Training Evaluation

Paper questionnaire

Your experiences of stress and coping

Should take 30 minutes to complete

Please answer as honestly as possible

Control Group

Recruits who didn't complete the training

Is there a difference between training and control participants?

Will make a difference for future students

Questionnaire Schedule

Completed this week - Thank you!

After the final workshop (May)

Attestation (August)

After six months on the job (February 2014)

Completed this week - Thank you!
What is stress?

- Work-related stressors (role-related such as confronting trauma, organizational related to policies and practices of the organization)
- Moderators (social support and personality)
- Coping
- Strain (consequences)
- Individual (physical consequences such as headaches, high blood pressure, heart disease, alcoholism...)
- Psychological (anxiety, depression, anger, decrease in job satisfaction)
- Behavioural (productivity, turnover, procrastination)
- Job-related absenteeism, conflict, cynicism, reduced commitment...
- Family consequences (relationship conflict or neglect with partners, children, and friends)

Stress appraisal

Nonwork stressors (eg family, health)

What about you?

- What do you think might be stressful?
  - At the academy?
  - On the job?

- How do you think you will cope?

Expectations of you

- Attend all workshops and questionnaire sessions
- Attendance will be recorded
- Practice the skills
- Respect the confidentiality of other participants
- Freedom not to disclose

Why is the NSW Police doing this?

- "Get data on why they requested the program"
  - Eg rates of stress

Common stressors

- Study
- Common stressors
- Stress
- What is stress?
Resilience is a process of adapting to difficulties and maintaining healthy psychological and physical functioning across all aspects of life.

Bonanno, 2004; Luthar & Cicchetti, 2000; Masten & Wright, 2009

Resilient people:
- Navy guy (Paul) who was attacked by a shark
- Ken Maslow, police example?
- Gerry guy (Paul) who was attacked by a shark

Why might this be useful to you?
- Staying focused and productive
- Better prepared to deal with stress on the job
- Coping with stress at the academy
- Better able to support others under distress
- More effective in changing and growing
- Healthy mindset and outlook
- Physical functioning across all aspects of life
- A process of adaptation to difficulties
What really matters to you?
- Does this work for you?
- How do you respond to challenges?
- Your current coping strategies

Workshop 1 Overview

The relationship between coach and participant

What this program is not about:
- Positive thinking
- Psycho-babble
- "Fixing you"
- Giving up
- Testing you
- Giving you more rules to follow
- "Fixing you"
- Positive thinking

These skills form the basis of the training:
- Less depression 12 months later
- Fewer problems 12 months later
- Reduced number of slips at attention
- Reduced NSW Police recruits over a year

Influence of coping skills - Police recruits

Previous trial - Senior NSW Police Officers

(Williams & Ciarrochi, 2009)
Values Orientation

What Matters to you
How do you currently respond to difficulties?

Values Orientation

Some common control techniques

Giving up, procrastination, smoke

Reasoning, arguing, humour, jokes (often)

Being the victim, thinking positively

Authority, disconnection, playing small

Backstabbing, playing big, assembling

Insead, whining, bitching

Something (doing / thinking something in)

Giving up, procrastination, smoke

Values

What is another important value in your

What kind of police officer do you want

Why is it important to you?

The NSW Police?

Write about your values behind joining

Topic One - Your Coping Style

Topic Two - Values
The Rule of Internal Experience:
If you’re not willing to have it, you’ll have it.

Rule of External Experience:
If you’re not willing to have it, you can usually get rid of it.

The mind is a don’t-get-eaten machine, which is sometimes useful.

Sometimes the don’t-get-eaten machine is not as useful.

Illusion of Control
How has it been working trying to control your feelings and thoughts?

Negative emotions and thoughts are like bees without stingers. Do you really have to run from them?
Avoidance vs Acceptance

Avoiding our own experiences – the stuff inside our skin, thoughts, memories, feelings, physical sensations, urges etc...

Avoidance = paradox, (in most cases) increases costs/consequences and increases distress

Acceptance – a position of choice, resilience, a position of choice. Increases cost/benefit, increases distress

Fusion vs Defusion

When we are fused with our thoughts, we miss opportunities to discover what works.

"Now, what are we going to do?"

Fusion

Is like walking…

Where does it take you???

Defusion

Being fused (or hooked) with thoughts is like walking…

When we are defused from our thoughts, we recognize that a thought:

- May or may not be true
- Is definitely not a command you have to obey or a rule you have to follow
- Is definitely not a threat to you
- Is not something happening in the physical world – it’s merely words or pictures inside your head
- May or may not be important – you have a choice as to how much attention you pay it
- Can be allowed to come and go of its own accord without any need for you to hold on to it or push it away.

"Now, what are we going to do?"

When we are not in the moment, we miss opportunities to discover what works.

Fusion vs Defusion (thinking traps)

Defusion

- Acceptance – a position of choice.
- Avoidance = refused (no real case)
- Avoidance = ignored (no real case)
- Fusion = Slavery
- Fusion = treadmill
- Fusion = slavery
- Fusion = belief
- Fusion = thoughts
- Fusion = judgment
- Fusion = reaction
- Fusion = evaluation
- Fusion = possession
- Fusion = devaluation
- Fusion = possession
- Fusion = evaluation
- Fusion = reaction
- Fusion = judgment
- Fusion = thoughts
- Fusion = Slavery
- Fusion = treadmill
- Fusion = slavery
- Fusion = belief

I am whole, complete, and perfect

And perfect

when we are defused from our thoughts.
Mindfulness = Noticing

Insight and flexibility to choose:

Not about just reacting to things

being in the moment - can give you a broader space in which to view things in order to help you to discover what works

Participating:

fully in the present moment.

How often are we stuck inside our heads, worrying about the future or beating ourselves up about the past?

"If you're not here, you're not anywhere."

Being right vs Being alive

Summary

Resilience – process of adaptation to stress & adversity

The paradox of controlling private experiences, experiential avoidance and fusion

Alternative:

"acceptance, unhooking & mindfulness"

Choosing to take action consistent with values

Identifying your own stressors

Mindfulness Exercises

Between session coaching

Identifying your own stressors

Practice

To be continued....
Support

If you experience distress, support is available:

- Lifeline - 131 114
- CSU support services: [Link]
- Chaplain, [Contact Information]
Workshop 2

Workshop 2 Agenda

- Review and Recap
- Values and Action
- Building coping resources
- Unhelpful coping strategies
- Developing Coping Flexibility
- Strategies for internal distress
- Strategies for difficult situations
- Workbook
  - Homework exercises
  - Notice stress responses
  - Practice mindfulness and defusion
  - Explore values
- Coaching emails
  - Demons on Boat and Defusion
  - Mindfulness of Body, Mindfulness of Breath
  - Problems, Values and Action worksheet

What is resilience?

Resilience is a dynamic process in which individuals display positive adaptation despite experiencing adversity (Bonanno, 2004; Luthar & Cicchetti, 2000; Masten & Wright, 2009). Positive adaptation refers to the maintenance of healthy psychological and physical functioning across a range of valued domains.

What is stress?

Stress can lead to further stress, increase your stress resilience by building coping resources, minimising unhelpful coping strategies, developing coping flexibility, acceptance and action.

Workshop 2 Review
Values Orientation – pursuing meaningful goals

Write about your values behind joining the NSW Police?
Why is it important to you?
What kind of police officer do you want to be?
What is another important value in your life?

Values
This is your compass. It shows you which direction to head. You never get there. Your valued direction guides you the way that the stars sometimes guide the sailors. E.g., being a loving parent, or having trusting relationships.

Valuing is not a feeling; it is action. Everything you do suggests a value. Even if you do nothing, you are behaving consistent with a value (doing nothing).

Values are what you choose to value.

Goals & Values
The goal is to fully participate in the process of moving towards the goal.
- What is another important value in your life?
- What kind of police officer do you want to be?
- Why is it important to you?
- The NSW Police
- What about your values behind joining the NSW Police?
Increase your Stress Resilience by Building coping resources

Minimising unhelpful coping responses

Healthy relationships - Why?

Healthy relationships - How

Minimising unhelpful coping responses

Largely characterised by experiential avoidance

○ Denying when there is a problem
○ Blaming yourself for the problem
○ Withdrawing from social interactions
○ Wishful thinking
○ Giving up

Build Coping Resources

Coping skills
- Emotional awareness
- Mindful awareness
- Self awareness
- Problem solving skills
- Assertive communication
- Communication skills
- Emotional regulation
- Cognitive flexibility

Self Awareness

Healthy Relationships

Striving for a balance

Why nurture your relationships?
○ They may contribute to stress
○ Emotional support
○ Instrumental support

Assertive communication

Letting go of control

Empathy

Acceptance

Values

Communicating your needs and others expectations

Communication

Active Listening

Empathy

Validation

Letting go of control

Mindful listening
Increase your Stress Resilience by Building coping resources

Minimising unhelpful coping strategies

Developing coping flexibility

Acceptance

Action

Values

Develop coping flexibility – Acceptance First

The Rule of Internal Experience:
If you're not willing to have it (difficult & distressing thoughts & feelings), you’ll have it

Vs

The Rule of External Experience:
If you're not willing to have it, you can usually get rid of it

We have poor control over internal distress:
focus primarily on acceptance strategies

Do I have any control over the situation?
If Yes: engage action strategies
If No: engage acceptance strategies

What can I control?
- What I say in a situation
- How I respond to other people
- What I value and care about
- The direction I want my life to take
- How I behave with other people
- What other people value and care about
- The choices others make
- What someone else is doing

The thoughts I may have from time to time

Internal Distress – Acceptance First

Willingness & Acceptance

○ The alternative to control and unhelpful coping

○ It’s a choice

○ It’s like an all-or-nothing jump

○ It’s not grit your teeth and bear it

○ Does not mean wanting – tug of war with thoughts

○ It’s fine to struggle with thoughts

○ It’s fine to struggle with other people’s thoughts

○ It’s fine to struggle with my own thoughts

○ It’s fine to struggle with my own mind

○ It’s fine to struggle with my own body

○ It’s fine to struggle with my own life

○ It’s fine to struggle with my own identity

○ It’s fine to struggle with my own self

○ It’s fine to struggle with my own senses

○ It’s fine to struggle with my own emotions

○ It’s fine to struggle with my own feelings

○ It’s fine to struggle with my own thoughts

○ It’s fine to struggle with my own words

○ It’s fine to struggle with my own actions

○ It’s fine to struggle with my own behaviors

○ It’s fine to struggle with my own behaviors

○ It’s fine to struggle with my own beliefs

○ It’s fine to struggle with my own values

○ It’s fine to struggle with my own desires

○ It’s fine to struggle with my own needs

○ It’s fine to struggle with my own wants

○ It’s fine to struggle with my own wants

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfactions

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations

○ It’s fine to struggle with my own satisfations
Negative emotions and thoughts are like bees without stingers. They seem scary. Do you really have to run from them?

We struggle against our private experiences, when sometimes what is required is to simply stop struggling.

Coping strategies to help you accept difficult internal experiences:

- Defusion
- Mindfulness
- Observer perspective
- Connecting with values
- Different internal experiences

"Now, what are we going to do?"

"When we are detached from our thoughts, we are aware of the moment, we feel more comfortable to discover what works."

"When we are not in the moment, we miss opportunities to discover what works.

Fusion vs Defusion:

- When we are defused from our thoughts, we recognize that a thought:
  - May or may not be true
  - Is definitely not a command you have to obey or a rule you have to follow
  - Is definitely not a threat to you
  - Is not something happening in the physical world – it's merely words or pictures inside your head
  - May or may not be important – you have a choice as to how much attention you pay it
  - Can be allowed to come and go of its own accord without any need to hold on or push it away.

"Now, what are we going to do?"

When we are not in the moment, we miss opportunities to discover what works.

They seem scary. Do you really have to run from them?
Mindfulness = Noticing

Insight and flexibility to choose:
Not about just reacting to things
being in the moment - can give you a broader space in which to view things in order to help you to discover what works

Participating:
Fully in the present moment.
How often are we stuck inside our heads, worrying about the future or beating ourselves up about the past?

"If you're not here, you're not anywhere."

Increase your Stress Resilience by Building coping resources
Minimising unhelpful coping strategies
Developing coping flexibility
Acceptance
Action

Internal Distress – Action Coping

Pursuing meaningful goals
Deep, slowed breathing
○ Breathe in through nose
○ 6 second cycle
○ Exhale through mouth

Grounding
Physical exercise
Making time to do different and enjoyable activities
Humour
Emotional support

Action Coping strategies for internal distress

Difficult Situations
Increase your Stress Resilience by

1. "If you’re not here, you’re not anywhere."
2. Pursuing meaningful goals
3. Deep, slowed breathing
4. Grounding
5. Physical exercise
6. Making time to do different and enjoyable activities
7. Humour
8. Emotional support

Values
Develop coping flexibility – Difficult situations

○ What is the problem/s?
○ What is causing it?
○ What are the likely consequences?
○ Is it worthwhile intervening?
○ Do I need more information? Where can I get it?

Assess: Do I have any influence over the situation?
○ If yes – Engage action coping strategies
○ If no – accept the situation (and associated internal distress)

Increase your Stress Resilience by Building coping resources
Minimising unhelpful coping strategies
Developing coping flexibility

Acceptance Coping strategies for difficult situations

If you have no control over the situation
○ Find a way to accept the situation

Explore what the situation means to you
- Connect with your values
- How does the situation relate to your values and goals?

Explore what you lose when you don’t accept the situation
○ Address associated internal distress

Being right vs being alive
Coping on Placement

Scenarios provided by previous students

Review your scenario in a group of 4 or 5

“How would you feel in this situation?”

“What would you find most difficult?”

“What coping strategies would you use?”

10 min group discussion

Report back to the bigger group

Any concerns about the placement?

Overview of coping strategies

Internal Distress

- Acceptance
  - Mindfulness
  - Defusion
  - Observer perspective
  - Connecting with values
- Accept situation
- Make meaning - connect with values

External

- Acceptance
  - Accept situation
  - Make meaning - connect with values
- Action
  - Pursuing meaningful goals
  - Deep slow breathing
  - Grounding
  - Physical exercise
  - Enjoyable activities
  - Humour
  - Emotional support
- Problem solving
  - Planning - Goal setting
  - Reduce time wasting
- Instrumental Support
  - Interpersonal skills
  - Assertiveness
  - Conflict Resolution
  - Negotiation

Coping Strategy

Stressor type

Summary

Living a meaningful and effective life

Values and goals

Resilience as coping flexibility

Use different coping strategies

○ Value-driven action OR acceptance
  ○ For different stressors
  ○ Internal distress OR Difficult situations

Situations I can influence

Situations I cannot influence

Practice

Explore your values

○ Think about the kind of police officer you want to be
○ What are your values in relation to this?
○ What barriers do you anticipate might come up and bully you away from following your values? What coping strategies can you put into practice to work through these barriers?

Nurture your relationships at work and home

Practice the coping strategies

To be continued....

Session 4:lam and effective Life

Practice

Between session coaching

5th session (early September)

Please complete the second questionnaire before attending (online/paper?)

4th session (pre attestation)
Healthy Relationships

If you experience distress during the course of the training, you should contact Lifeline on 131114 or CSU support services: www.csu.edu.au/division/studserv/counselling/online-counselling.htm

Padre Robinson, 0421 052 069, room C212

Estelle Anderson, 0419 658 508, 199 Bourke Street, Goulburn.

Reflections

One thing you found useful would like us to cover in more detail next session

Recap... Project Aim

Healthy Relationships - Communication

Healthy Relationships - Communication

Healthy Relationships - How

Increase your Stress Resilience by Building coping resources

Minimising unhelpful coping strategies

Developing coping flexibility

Acceptance

Action

Reactions
Healthy relationships – Barriers

- Poor listening
  - Listening through a filter (e.g., superiority, evaluation)
  - Interrupting others before they get a chance to express themselves

- Invalidating others
  - Rejecting, ignoring or judging others’ experiences

- Trying to control others
  - Their behaviour and their perceptions

- Putting up walls
  - Not expressing yourself (fear of rejection)

- Breaking commitments (and trust)

- Gossiping about others

Problem solving for difficult situations

- Brainstorm possible solutions
  - Consider values and likely outcomes
  - Map out pros/cons for you and others

- Select the best approach

- Plan how to implement it
  - Draw on planning skills

- Take Action

Planning for difficult situations:

- Goal Setting
  - Specific
    - What am I planning to do? Break down large goals into specific steps
    - Why: Clarify the purpose or benefits of accomplishing the goal
    - Who: Who else needs to be involved?
  - Measurable
    - How will I know if I have achieved the goal?
  - Attainable
    - Do I have the ability and resources to achieve the goal?
    - Does it fit with other commitments?
  - Relevant
    - Is it important to me?
    - Is it consistent with my values?
  - Timely
    - When will each step be completed?

Planning for difficult situations: Manage time wasting

- Allocate time to complete tasks
  - at the time of day when you work best
  - be realistic about how long tasks take
  - If you need help arrange this ahead of time

- Plan ahead for distractions and setbacks
  - Try to finish with some time to spare
  - Learn to say no (see assertiveness)

- Prioritise tasks
  - Can’t do everything
  - Classify as Urgent, Important or Can wait

- Get started
  - Accept worry associated with uncertainty
  - Start with a small task
  - Reward yourself for progress

Interpersonal skills for difficult situations: Planning interactions

- What is the goal of the interaction?
  - What do you want to achieve (e.g., request...)
  - How you want the other person to feel about it
  - How do you want to feel
  - Which is most important?

- What about the other person?
  - What do you think their values might be?
  - What do you think they might want to achieve?

Interpersonal skills for difficult situations: Assertiveness

- Being Assertive includes:
  - valuing yourself and believing that you have the right to express your opinions and get your needs met (requests)
  - being willing to share yourself with others, rather than holding everything inside
  - respecting the rights and needs of others
  - being able to choose how to respond to people or situations (agreeing or refusing)
  - feeling okay about yourself, your needs, and actions

- Being Assertive is NOT
  - aggressiveness
  - passive
Interpersonal skills for difficult situations:

**Assertiveness**
- Requires
  
  - Explaining why you are making the request or refusal
  
  - Clearly stating what you are requesting or refusing
  
  - Rewarding the other person for giving you what you want
    
    - Being thankful
    
    - Promising to work extra hard

**Response skills where others resist your assertiveness**
- Communicate confidence not defensiveness
- Persistence
  
  - Broken record – simply repeat your request or refusal
  
  - Don't get caught up in arguments
- Fogging
  
  - Briefly acknowledge some element of truth in other person's resistance without giving up on the request
- Negotiation
  
  - With people who have power over you or are very persistent
  
  - May need to give up a little to get what you want

Interpersonal skills for difficult situations:

**Conflict resolution**
- Reasons for conflict:
  
  - Competition for limited resources
  
  - Personal differences
  
  - Lack of information or distorted information
  
  - Role conflict

**Approaches to resolving conflict**

- Concern for Self
  
  - High (assertive)
  
  - Low (unassertive)

- Concern for Others
  
  - Low (uncooperative)
  
  - High (cooperative)

- Competing
- Avoiding
- Compromising
- Collaborating
- Accommodating

Which style you use depends on:
- Your role
- The nature of the conflict
- Do you have power?
- Do you have time to negotiate?
- Do you and the other party trust each other to collaborate?
- Your objective
  
  - Short term outcome?
  
  - Relationship considerations

**Negotiation**
- Acknowledge position of other party
- Use active listening techniques
- Adopt effective questioning techniques to obtain as much information about other parties' interests
- Accurately interpret nonverbal communication

- Integrative negotiation (expands the pie)
  
  - Work in interests of self and the other party
  
  - Think creatively to find win-win (collaborative) conflict resolution strategies rather than win-lose tactics (competitive)

- Brainstorm as many options as possible
- Separate brainstorming from evaluation
- Relate options to interests (yours and theirs)
- Relate options to standards/policies
- Relate options to alternatives (yours and theirs):
  
  - Actions you can take without reaching an agreement

**Assessments**
Workshop 3
Agenda

- Revisit the resilience model and coping strategies
- Values clarification exercise
- Break
- Placement debrief and discussion
- Adaptation

Workshop 2 – Q&A

Questionnaire 2

30 min online questionnaire
Please answer as honestly as possible
All responses anonymous
Please complete today

http://tinyurl.com/3n77rma
Paper version available

Data use and storage

Information will always be summarised at group level so it will not be possible to identify individuals who have participated in the research.

All completed paper questionnaires will be stored in locked filing cabinets and all data will be stored on secure file servers.

No information specific to individual officers will be released to the NSW police or NSW police association, so far as the law allows. (Surveys anonymous)

The findings from this research will be summarised and presented to the NSW police and NSW police association. They will also be presented at conferences and in scholarly journals in the fields of clinical psychology, occupational health psychology and policing.

What is RESILIENCE?

A dynamic process in which individuals display positive adaptation despite experiencing adversity (Bonanno, 2004; Luthar & Cicchetti, 2000; Masten & Wright, 2009).

Positive adaptation refers to the maintenance of healthy psychological and physical functioning across a range of valued domains.

Strengths: the capacity to bounce back from adversity.
Increase your Stress Resilience by Building coping resources

Minimising unhelpful coping strategies

Developing coping flexibility

Acceptance

Guided by your Values

The Rule of Internal Experience:
If you're not willing to have it (difficult & distressing thoughts and feelings), you'll have it

Vs

Rule of External Experience: If you're not willing to have it, you can usually get rid of it

We have poor control over internal distress: focus primarily on acceptance strategies

Do I have any control over the situation?
If Yes: engage action strategies,
If No: engage acceptance strategies

Selecting coping strategies that match the nature of stressor

Overview of coping strategies

Internal Distress (thoughts, feelings, memories, sensations)

Acceptance-based
- Mindfulness
- Defusion
- Observer perspective
- Connecting with values
- Accept situation
- Make meaning

Action-based
- Pursuing meaningful goals
- Deep slow breathing
- Grounding
- Physical exercise
- Enjoyable activities
- Humour
- Emotional support
- Problem solving
- Planning - Goal setting
- Reduce time wasting
- Instrumental support
- Interpersonal skills - Assertiveness - Conflict Resolution - Negotiation

External (Difficult situations)

<table>
<thead>
<tr>
<th>Coping Strategy</th>
<th>Stressor type</th>
<th>Values/goals</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discovering what you care about</td>
<td>Find what matters most to you</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is important to you?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What would you do if you had all the money in the world?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Now that you have everything you ever wanted, what would you do next?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Values Card Sort Exercise

Sort into three piles
Piles don't have to be equal.
Not important to me
Somewhat important to me
Extremely important to me

10 - 15 cards here

Committing to Action
Identify one action you can commit to take that is consistent with your values

Mindfulness – revisiting your placement
Describe your experience

Internal Experience
What kinds of physical sensations, thoughts, emotions and memories did you experience in the situation? And afterwards?
Which of these were distressing to you and / or might act as a barrier to being able to work effectively in this situation?
What kind of strategies / techniques did you engage to assist with distressing or distracting internal experiences?

External Experience
What were the kinds of things that were going on around you that you needed to be aware of and pay attention to.
What caused you distress in this particular situation?
What was your role in this situation?
What strategies did you put into place in order to act effectively in the situation?

Discussion
Confidentiality
Any personal information that is revealed or discussed in any session is confidential and should not be shared or discussed with anyone at all outside of the room (including partners and family members).

BREAK

Take time to contrast with your values

Committing to Action

Sort into three piles

Values Card Sort Exercise
What coping strategies did you use?

**Internal Distress**
- Thoughts, feelings, memories, sensations

**External**
- Difficult situations

**Acceptance-based**
- Acceptance
- Make meaning
- Connect with values

**Action-based**
- Pursuing meaningful goals
- Deep slow breathing
- Grounding
- Physical exercise
- Enjoyable activities
- Humor
- Emotional support

**Coping Strategy**

**Adaptation – Can you sell this?**
- For external situations
- For internal distress

**Practice the coping strategies**
- For internal distress
- For external situations

**Values**
- Explore them
- Take actions consistent with them

**Notice**
- How do others respond to stress
- How do you respond to stress

**Practice**

**Scenarios – Applying the coping skills in critical situations and interpersonal difficulties**

**Program review and conclusion**
Support
If you experience distress during the course of the training, you should contact Lifeline on 131114 or CSU support services: www.csu.edu.au/division/studserv/counselling/online-counselling.htm
Padre Robinson, 0421 052 069, room C212
Estelle Anderson, 0419 658 508, 199 Bourke Street, Goulburn.

Workshop 2
Questions
What is stress?

Work%Stressors%
Operational (Role related such as confronting trauma)
Organizational (related to policies and practices of the organization)

Moderators
Social support and Personality

Coping

Strain (Consequences)
Individual
Physiological (Headaches, High blood pressure, Heart disease, Alcoholism..)
Psychological (Anxiety, Depression, anger, Decrease in job. Sat..)

Behavioural (Productivity, Turnover, Procrastination)
Job related Absenteeism, conflict, cynicism, reduced commitment…)

Family consequences
Relationship conflict or neglect with partners, children, and friends

Stress
Appraisal

Nonwork Stressors (eg family, health)
Strain can lead to further stress
Workshop 4 – Final Session

Agenda

- Review of Coping Flexibility and Resilience
- Dealing with Critical Incidents
- Improving Interpersonal Effectiveness
- Review and Wrap Up

Workshop 3 Practice

- Nurture your relationships at work and home
- Practice the coping strategies
- Notice how you respond to stress
- Notice how others respond to stress
- Explore them
- Taking actions consistent with them

Your current challenges?

Pick a number!
- Between 1 and 63
- Write it down
What is Resilience?

A dynamic process in which individuals display positive adaptation despite experiencing adversity (Bonanno, 2004; Luthar & Cicchetti, 2000; Masten & Wright, 2009).

Positive adaptation refers to the maintenance of healthy psychological and physical functioning across a range of valued domains.

What is stress?

Work Stressors

Operational (Role-related such as confronting trauma)

Organizational (related to policies and practices of the organization)

Moderators

Social support and Personality

Coping

Strain (Consequences)

Individual

Physiological (+ Headaches, High blood pressure, Heart disease, Alcoholism...)

Psychological (+ Anxiety, Depression, anger, decrease in job satisfaction...)

Behavioural (+ Productivity, Turnover, Procrastination)

Job-related Absenteeism, conflict, cynicism, reduced commitment...

Family consequences

Relationship conflict or neglect with partners, children, and friends

Stress Appraisal

Work Stressors

(eg family, health)

Strain can lead to further stress

The Rule of Internal Experience:

If you're not willing to have it (difficult & distressing thoughts and feelings), you'll have it

Vs

Rule of External Experience:

If you're not willing to have it, you can usually get rid of it

We have poor control over internal distress:

Focus primarily on acceptance strategies

Do I have any control over the situation?

If Yes:

Engage Action strategies

If No:

Engage Acceptance strategies

Guided by your values

Building coping resources

Noticing unhelpful coping strategies

Develop coping flexibility

Selecting coping strategies that match the nature of stressor

Assess if you have control over the stressor

○ If yes – engage Acceptance coping

○ If no – engage Action coping

Increase your resilience

Overview of coping strategies

Internal Distress (thoughts, feelings, memories, sensations)

External (Difficult situations)

Acceptance based

• Mindfulness
• Defusion
• Observer perspective
• Connecting with values

• Accept situation
• Make meaning - connect with values

Action based

• Pursuing meaningful goals
• Deep slow breathing
• Grounding
• Physical exercise
• Enjoyable activities
• Humour
• Emotional support

• Problem solving
• Planning - Goal setting - Reduce time wasting

Instrumental support

• Assertiveness
• Conflict Resolution
• Negotiation

Coping Strategy Stressor type

20/12/16
The Guns of Adjungbilly

Tumut Siege (Feb 2001)

"90 Officers over 36 hours"

Main Characters:
- Jim Hallinan – Offender
- Brett Pennell – Sgt
- Rory Ford – Fmr Tactical Police Officer
- Tim Leonard – Fmr Tactical Police Officer
- Peter Nunan – Fmr NSW Police Area Commander
- Lenore Schiller – Fmr NSW Police Negotiator
- Brian & Loretta (Brother and sister of Jimmy) – Feel very disillusioned with the Police
- Brother and sister of Jim

The Incident

Family are kept away from the scene

Over 2 days

The Impact

The Incident

Two Clips:
- Police & media present
- Officers from above to end the situation

The Guns of Adjungbilly

Discussion – Part 1

The Incident

Discussion – Part 2

The Impact
What would you find difficult?

Common interpersonal difficulties:

- Forming a relationship with a colleague
  - You want to work with them all the time
- Relationship breakup with a colleague
  - You don’t want to work with that person any more
  - Station staff take sides
  - Working with unprofessional colleagues
  - They do not carry out their duties
  - They pass on work and let other cars do radio jobs

Common interpersonal difficulties (cont):

- Your colleagues start gossiping about you
- Your supervisor appears to favour other police
- Your colleagues complain that you have become a favourite
  - They are not aware of your personal circumstances
- Your supervisor is overly critical and not supportive

Your traditional reactions:

- How might you feel?
- How might you think?
- How might you react?
- Consequences
  - How would others feel?
  - What might they think?
  - What might they do?
- What else could you do?
  - Internal distress (thoughts, feelings, memories, sensations)
    - Acceptance based
      - Mindfulness
      - Defusion
      - Observer perspective
      - Connecting with values
      - Accept situation
      - Make meaning
  - External (Difficult situations)
    - Acceptance based
      - Pursuing meaningful goals
      - Deep slow breathing
      - Grounding
      - Physical exercise
      - Enjoyable activities
      - Humour
      - Emotional support
    - Action based
      - Problem solving
      - Planning - Goal setting
      - Reduce time wasting
    - Instrumental support
      - Interpersonal skills
      - Perspective taking
      - Assertiveness
      - Conflict Resolution
      - Negotiation
  - Coping Strategy
    - Stressor type
      - They pass on work and let other cars do radio jobs
      - They do not carry out their duties
      - Your colleagues start gossiping about you
      - Your supervisor appears to favour other police
      - Your colleagues complain that you have become a favourite
      - They are not aware of your personal circumstances
      - Your supervisor is overly critical and not supportive

Interpersonal difficulties - Scenarios

• What would you do?
• What might they do?
• How would you feel?
• How might you react?
• What might they think?
• What might they do?
STOP!
Stop and step back
Take a breath
Observe
Put your values into play. Do what works
Picture someone that annoys you

Planning the conversation

Conflict Resolution

What would you think they might want to do?
What do you think they would do?
What should the other person do?
How does this make you feel?
What is your goal in this interaction?

Assertiveness

What does assertiveness sound like?
What if the other person does not give you respect?
What does assertiveness sound like when you are talking?

Perspective taking

Picture someone that annoys you

Perspective taking (continued)

Imagine a difficult situation
Perspective taking (continued)

Conflict resolution
Concern for Self
High (assertive)
Low (unassertive)

Concern for Others
Low (uncooperative)
High (cooperative)

Competing
Avoiding
Compromising
Collaborating
Accommodating

Assertiveness (continued)

What does assertiveness sound like?
What if the other person does not give you respect?
What does assertiveness sound like when you are talking?

Perspective taking

Picture someone that annoys you

Perspective taking (continued)

Imagine a difficult situation
Perspective taking (continued)

Conflict resolution
Concern for Self
High (assertive)
Low (unassertive)

Concern for Others
Low (uncooperative)
High (cooperative)

Competing
Avoiding
Compromising
Collaborating
Accommodating

Assertiveness (continued)

What does assertiveness sound like?
What if the other person does not give you respect?
What does assertiveness sound like when you are talking?
Negotiation

○ Brainstorm options
○ Evaluate options for you/other party

Consider interests/values
Consider alternatives
 Requires active listening

Other strategies to deal with interpersonal difficulties

Guided by your values

What else?

Negative emotions and thoughts are like bees without stingers. They seem scary. Do you really have to run from them?

Building coping resources

Noticing unhelpful coping strategies

Developing coping flexibility

Acceptance

Action

Increase your resilience
"Now, what are we going to do?" When we are not in the moment, we miss opportunities to discover what works.

Discovering what you care about
Committing to Action
Taking action consistent with your values when that brings up distress

What strategies have you used?

Internal Distress (thoughts, feelings, memories, sensations)
External (Difficult situations)

Acceptance based
• Mindfulness
• Defusion
• Observer perspective
• Connecting with values
• Accept situation
• Make meaning

Action based
• Pursuing meaningful goals
• Deep slow breathing
• Grounding
• Physical exercise
• Enjoyable activities
• Humour
• Emotional support

Coping Strategy
Stressor type

Practicing

How are you going to remember and apply what you have learnt?

Training Program Resources
• Additional reading
• Workbook
• Resources CD

Additional reading
• Mindfulness recordings (x3)

Exercises

Additional reading
Will be mailed on request

Workbook
Pdfs

Exercises

Additional reading

Exercises

Additional reading

Exercises
Training Program Evaluation

Questionnaire 3

Please complete in the next week
Please answer as honestly as possible
All responses anonymous
30 min online questionnaire
Paper version will be available on request (by email)

Questionnaire 4

Will be sent out via email in March
Phone interview
Focus group
You are willing to volunteer 15 min
Please identify on the resources form if you are willing to volunteer 45 min
A focus group
Delivery format
Content
We need your feedback on program feedback

Thank you!
Appendix 3

Study 2 Materials
Project Title: Stress resilience training for police recruits

Investigators
Mr Chris Horan          Department of Psychology, christopher.horan@anu.edu.au
Dr Linda Bilich           School of Psychology, linda.bilich@anu.edu.au
Prof Don Byrne          Department of Psychology, don.byrne@anu.edu.au
Prof Seumas Miller    Centre for Applied Ethics and Public Ethics, smiller@csu.edu.au

Aims of the project
This project is fully supported by the NSW police force and the NSW police association. The aim of the project is to evaluate the effectiveness of a group training program designed to develop stress resilience in police recruits.

In order to evaluate the effectiveness of the training, students beginning session 1 at the NSW police academy in May 2012 will complete a questionnaire at three time points over a 6 month period (in May 2012, September 2012 and December 2012).

This questionnaire will ask about your experiences of stress and your use of coping strategies. It is important that you try to answer all the questions.

Confidentiality Procedures/ Data use and storage
Information will always be summarised at group level so it will not be possible to identify individuals who have participated in the research. All completed paper questionnaires will be stored in locked filing cabinets and all data will be stored on secure file servers.

No information specific to individual officers will be released to the NSW police or NSW police association, so far as the law allows. The findings from this research will be summarised at group level and presented to the NSW police and NSW police association. They will also be presented at conferences and in scholarly journals in the fields of clinical psychology, occupational health psychology and policing.

Further Assistance
If you would like further information about this research, please contact the investigators listed above. If you experience distress during the course of your studies at the police academy, you should contact Lifeline on 131114 or the NSW police counselling service. If you have any concerns regarding the conduct of this research please contact:

The Secretary, ANU Human Research Ethics Committee, Research Office, Australian National University, ACT, 0200, Australia
Phone: (61-2) 6125 3427.       Email: human.ethics.officer@anu.edu.au
Program Objectives - Reminder

- Develop self-awareness of how stress affects you
- How you typically cope with stress

Program Objectives - Reminder

- Learn new ways of coping with stress
- How you apply coping strategies
- How stress affects you
- Develop self-awareness of

Skills development

- Nothing changes without practice

Between workshops

- 5 minute task to complete each day
- We will support you to complete the tasks
- Daily reminders by SMS and email (8pm?)
- Telephone coaching

Between workshop 3-4

- Follow-up (after program)
- Sign-up sheet to book telephone appointment

Workshop breakdown

Workshop 1

- Self-awareness
- Recovering from stress response

Workshop 2

- Dealing with stressors
- Coping flexibility

Workshop 3

- Preparing for placement

Workshop 4

- Debriefing from placement
- Preparing for placement
- Coping flexibility
- Creating new strategies
- Dealing with stressors
- Evaluating your stress response

Agenda for workshop 1

- Introductions
- Explore
  - Stress - How does it effect you?
  - Values – How do they relate to stress
  - Resilience – How can you become resilient?
  - Coping – What works and doesn’t work for you?
- Learn
  - How to recover from the stress response (Restarting your brain when it goes offline)
- Wrap up
  - Quiz - 10 short questions (10 minutes)
  - Workshop review and quiz marking
  - Daily tasks
  - Workshop feedback

Workshop 1

- Stress resilience training
Workshop Rules

Confidentiality
Respect
Turn off phones
Active participation
Ask questions
Attendance – roll will be taken at each workshop

Paired introductions

Find someone you don’t know (5 minutes)
Their name
Where they are from
What they want to learn in resilience training
Why they want to be a police officer
Their claim to fame
Introduce that person to the group (30 seconds)

Past Work Stressors

What was the most stressful thing you had to experience in your previous job?

But nothing bothers me

But I don’t get stressed

What was the most stressful thing you had to experience in your previous job?

Past Work Stressors

What was the most stressful thing you had to experience in your previous job?

But nothing bothers me

But I don’t get stressed

What was the most stressful thing you had to experience in your previous job?

Past Work Stressors

What was the most stressful thing you had to experience in your previous job?

But nothing bothers me

But I don’t get stressed

What was the most stressful thing you had to experience in your previous job?

Past Work Stressors

What was the most stressful thing you had to experience in your previous job?

But nothing bothers me

But I don’t get stressed

What was the most stressful thing you had to experience in your previous job?

Past Work Stressors

What was the most stressful thing you had to experience in your previous job?

But nothing bothers me

But I don’t get stressed

What was the most stressful thing you had to experience in your previous job?
Thinking ahead

What do you think will be the most stressful thing you will have to face as a police officer?

What might be stressful?
At the academy or on the job?

Organisational Policing Stressors
(Related to the system)

- Staff shortages
- Lack of resources
- Bureaucratic red tape
- Internal investigations
- Inadequate equipment
- Dealing with coworkers
- Too much computer work
- Perceived pressure to volunteer free time
- The need to be accountable for doing your job
- Feeling like you always have to prove yourself to the organization
- If you are sick or injured your coworkers seem to look down on you
- Leaders overemphasize the negatives (e.g., supervisor evaluations, public complaints)
- Dealing with supervisors
- Inconsistent leadership style
- Excessive administrative duties
- Dealing with the court system
- Lack of training on new equipment
- Constant changes in policy/legislation
- Unequal sharing of work responsibilities

Operational Policing Stressors
(Related to the work)

- Shift work
- Paperwork
- Overtime demands
- Working alone at night
- Eating healthy at work
- Making friends outside the job
- Risk of being injured on the job
- Not enough time available to spend with friends and family
- Lack of understanding from family and friends about your work
- Work related activities on days off (e.g., court, community events)
- Friends/family feel the effects of the stigma associated with your job
- Traumatic events (e.g., motor vehicle accident, domestics, death, injury)
- Limitations to your social life (e.g., who your friends are, where you socialize)
- Fatigue (e.g., shift work, overtime)
- Negative comments from the public
- Upholding a “higher image” in public
- Feeling like you are always on the job
- Managing your social life outside of work
- Finding time to stay in good physical condition
- Occupation-related health issues (e.g., back pain)

Values – what matters to you

If police officers tell us the job is stressful...

Why do existing officers stay in the job?
Why do people keep signing up?

If you could change one thing about the job, what would it be?

What might be stressful?
Values

- Values function as your compass
- They show you which direction to head
- What values made you want to be a police officer?
- What you choose to value is up to you

Your Values

- Not important to me
- Somewhat important to me
- Extremely important to me

Sort cards into three piles:
- Piles don’t have to be equal

Write down your top 10 values:

- 1. __________________________________
- 2. __________________________________
- 3. __________________________________
- 4. __________________________________
- 5. __________________________________
- 6. __________________________________
- 7. __________________________________
- 8. __________________________________
- 9. _________________________________
- 10. ________________________________

Your Goals

- For each of your top 2 values
- Identify 1 action to complete for each goal
- What is your goal?
- List 1 goal that you are currently pursuing or
- That you would like to pursue

Values & Goals

- Values are different from goals
- Values provide direction e.g. West
- Goals are achievable e.g. Perth

Your Values & Goals

- Write down your top 10 values:
- Values are different from goals
- Write your top 10 values:
- Values provide direction e.g. West
- Goals are achievable e.g. Perth

- For each of your top 2 values
- Identify 1 action to complete for each goal
- What is your goal?
- List 1 goal that you are currently pursuing or
- That you would like to pursue

Value One:

- Goal 1: __________________________________
- Action: __________________________________
- Goal 2: __________________________________
- Action: __________________________________
- Goal 3: __________________________________
- Action: __________________________________
Values - Summary

Outcomes

- Can continue pursing valued goals
- We need to learn how to manage stress so we can
- Stress may arise
- When we perceive a threat to a valued goal
- Stress is a normal part of life
- Stressed to our values
- We feel motivated to work on goals that are
- Values represent what is important to us

Stress & Values

- Protecting the community
- Pass or fail police training
- Become a police officer

If outcome of a valued goal appears to be under threat, we may experience stress. We are motivated when our goals are aligned with our values.

Stress and Values

- Stress and Values are a package deal
- When stress arises we have a choice
- We avoid stress and abandon our values
- OR
- We learn to manage stress so we can continue pursuing our values/goals

Values – Summary

- Values represent what is important to us
- We feel motivated to work on goals that are linked to our values
- Stress is a normal part of life
- When we perceive a threat to a valued goal, stress may arise
- We need to learn how to manage stress so we can continue pursuing our valued goals.
- Failure to achieve your goals does not cancel out what you value.
- If you fail to attest as a police officer, would “protecting the community” still be important to you?
So what is stress?

**Goals**

**Values**

**Stressor**

**Stress**

What is a stressor?

"A stressor is something that triggers stress"

Stressors can be:

- an external situation e.g. Official complaint
- internal experiences
  - Thought e.g. I'm going to fail
  - Memory e.g. Memory of being fired
- Emotion e.g. Fear
- Sensation e.g. Heart racing

Appraisal of threat

Two people can be exposed to the same stressor, but experience different levels of stress.

Why?

1. The stressor is a threat to something valued
2. We think we can't cope with the threat

Evolution of the stress response

Helped our ancestors to survive when under threat.

E.g. Attacked by a tiger

They responded by fighting or running away

The role of the amygdala in threat perception

Helps us to fight or flight when threatened.

Symptoms:

- Automatic
- Psychological
- Emotional
- Physical

What happens in your body when you get stressed?

Symptoms:

- Emotional
- Physical
- Psychological

So what is stress?
Resilience

If there is an immediate threat to your safety

If there is no immediate threat and its being

YES

NO

Resilience

What does this term mean to you?

Can you think of anyone that is resilient?

Resilience

Coping with stress in ways that enable you to

○ bounce back from the stress and

○ persist with valued actions

Acknowledges that some stress is

○ an inevitable part of life

○ attempting to remove all stressors is unhelpful

Some people are more resilient than others (eg parents)

Some people are more resilient than others (eg parents)

Some people are more resilient than others (eg parents)

Some people are more resilient than others (eg parents)

Coping with stress in ways that enable you to

Eating well and sleeping

Going back to the basics and

Coping with stress in ways that enable you to

Coping with stress in ways that enable you to

Coping with stress in ways that enable you to

Amount of Stress

Low

High

Optimum

Stressor

Stress

If appraised as threat

Consequences of chronic stress

• Physical (Headaches, high blood pressure, heart disease, body open to infections, alcoholism...)

• Psychological (Anxiety, depression, anger)

• Behavioural (Productivity, turnover, burn-out)

Stress and performance

Stress

Low (poor)     Level of Performance     High (excellent)

Too Little

Stress

(Boredom)

Excessive

Stress

(Anxiousness)

Symptoms of stress

• Physical

• Emotional

• Psychological

Goals

Stressor

Stress

If appraised as threat

Consequences of the internal stress response

© Chris Horan, 2013

© Chris Horan, 2013

© Chris Horan, 2013

© Chris Horan, 2013
How do you respond when you get stressed?

Developing effective ways of coping

- Are you willing to do this?
- Changing your coping habits will require these steps:
  - Practice in between sessions
  - Changing your coping habits will require these steps:

Coping

- Developing your support network
  - Choose new coping skills
  - Examples of coping strategies that are effective:
    - Stress reduction
    - Self awareness

Adaptive

- Helps us to deal with stress
- Enables us to pursue our goals
- Example: Getting feedback on failed test

Maladaptive

- Does not help us to deal with stress
- Gets in the way of our valued goals
- Example: Getting drunk after failing test

Are your coping strategies effective?

- Rate each coping strategy as adaptive and maladaptive in short term vs long term
- Some coping strategies may be effective in the short term, but not in the long term
- We can become more resilient by changing our
- Some coping strategies may be effective in the short term, but not in the long term
- Changing our coping strategies may be effective in the short term, but not in the long term
- Changing your coping habits will require these steps:
  - Practice in between sessions
  - Changing your coping habits will require these steps:

Why is the NSW police force interested in resilience?

- NSW Police want to ensure all new recruits
  - Learn a set of adaptive coping skills
  - So they can respond to whatever stressors may arise
  - The goal is to prevent the development of the more severe consequences of stress
  - So they can respond to whatever stressors may arise
  - There is a need to develop coping skills that

NSW Police Resilience Model

Self awareness – Your

- Stress triggers
- Current ways of coping
- Coping flexibility

- Learn new coping skills
- Choose coping strategies that are effective
- Reduce use of unhelpful strategies
- Choose coping strategies that are effective
- Reduce use of unhelpful strategies

Develop your support network

- Choose new coping skills
- Examples of coping strategies that are effective:
  - Stress reduction
  - Self awareness

Developing effective ways of coping

- Are you willing to do this?
- Changing your coping habits will require these steps:
  - Practice in between sessions
  - Changing your coping habits will require these steps:

Coping

- Developing your support network
  - Choose new coping skills
  - Examples of coping strategies that are effective:
    - Stress reduction
    - Self awareness

Adaptive

- Helps us to deal with stress
- Enables us to pursue our goals
- Example: Getting feedback on failed test

Maladaptive

- Does not help us to deal with stress
- Gets in the way of our valued goals
- Example: Getting drunk after failing test

Are your coping strategies effective?

- Rate each coping strategy as adaptive and maladaptive in short term vs long term
- Some coping strategies may be effective in the short term, but not in the long term
- We can become more resilient by changing our
- Some coping strategies may be effective in the short term, but not in the long term
- Changing your coping habits will require these steps:
  - Practice in between sessions
  - Changing your coping habits will require these steps:

Why is the NSW police force interested in resilience?

- NSW Police want to ensure all new recruits
  - Learn a set of adaptive coping skills
  - So they can respond to whatever stressors may arise
  - The goal is to prevent the development of the more severe consequences of stress
  - So they can respond to whatever stressors may arise
  - There is a need to develop coping skills that
Recovering from the stress response

Why do this first?
- Fight or flight is often unhelpful when dealing with modern stressors
- Can you deal with complex problems when the stress response has been triggered?

How to recover from the stress response
- Take a 5-minute break – don’t react straight away
- Engage these strategies:
  - Mindfulness
  - Breathing
  - Muscle Relaxation
  - Exercise
  - Emotional support

Recovering – Mindfulness (Noticing)

Attention Regulation
- Refocusing attention to different aspects of immediate experience (thoughts, feelings and sensations)

Orientation/Attitude
- Gently, like a friendly scientist, observe with curiosity, without judgement or attempting to change anything

Flexibility to choose
- No longer habitually reacting to stressors
- A broader perspective on what is happening
- Space to discover better ways to respond

Participating
- Fully in the present moment
- How often are we stuck inside our heads, worrying about the future or beating ourselves up about the past?
- “If you're not here, you're not anywhere.”

Now, what are we going to do?

Now, what are we going to do?

Complex Example

These responses are often triggered…
- Can you deal with complex problems when the modern stress response has been triggered?
- Fight or flight or other reaction when dealing with non-emergency situations?
- Why do these result?

Coping Flexibility Steps
**Recovering – Breathing**

"When we are anxious/stressed, we tend to over breathe." This leads to dizziness, confusion, increased heart rate, blurred vision, breathlessness. Therefore it is important to slow breathing down.

- Deep, slowed breathing
  - Get comfortable
  - Stomach breathing
  - Breathe in through nose (4 seconds)
  - Hold
  - Breathe out fully (4 seconds)

**Recovering – Muscle Relaxation**

"Learning to relax your muscles"
- Involves tensing and relaxing a series of different muscle groups
- By alternating between tension and relaxation you will learn to discriminate between these two states and become more aware of tense body areas
- With practice can achieve a sense of muscle relaxation quickly

**Recovering – Exercise**

"When the fight flight response has been activated"
- Our immune system is suppressed
- We are tense
- We are likely to feel overwhelmed

"Physical exercise enhances the ability of the body to respond to stress"
- Releases endorphins – mood enhancement
- Improves sleep quality, relaxation and health
- Buffers the effect of stress on anxiety and depression

"What kind of exercise do you do?"

**Recovering – Emotional support**

"You don't have to be alone"
- What might stop you from reaching out?
- Write down someone you can talk to for:
  - Work: __________________________
  - Personal: _______________________

**Recovering – Noticing when you are recovering**

"As you come out of fight or flight you will notice"
- Changes in your breathing and heart rate
- Less muscle tension
- Being able to think more clearly

"Now is time to explore what you can do about"
- This is the focus of workshop 2

**Values**

- Symptoms of stress
  - Physical
  - Emotional
  - Psychological

- Goals
  - Stressor
  - Stress
  - If appraised as threat

**Consequences of chronic stress**
- Physical
- Psychological
- Behavioural

**Summary for today**
- Recover from stress response
- Deal with the stressor
- Mindfulness
- Breathing
- Muscle Relaxation
- Exercise
- Emotional support

**Next workshop**
- Stress and resilience
- Destructive vs. constructive stress responses
- Storytelling
- Group work
- Group discussion
- Overview of workshop 2
10 minute quiz!
15 questions about content.
Fill in the blanks.
Short answer questions.
Please put your name on it.
We will collect it after it is marked.

Quiz review
We want to make sure you understand what we are saying.
If anything is unclear we will address it.

○ Workshop 2
○ Phone coaching

Please mark your neighbours quiz.

Daily Homework - example

Daily Homework (10 minutes per day):
- Practice each day
  - Breathing (Days 1 to 3)
  - Mindfulness (Days 4 to 6)
  - Progressive muscle relaxation (Days 7 to 9)
  - Physical exercise (Days 10 to 12)
  - Emotion support (Work out who you can trust)

- For motivation
  - Align your actions with your values

Feedback
Thank you for your participation.
Evaluation Form
Questions

Quiz
We will collect a quiz if it is marked.
- Please put your name on it.
- Phone coaching
- Workshop 2
- Fill in the blanks
- 15 questions and content

Quiz Review
We want to make sure you understand what we are saying.
If anything is unclear we will address it.

○ Workshop 2
○ Phone coaching
You
Stress
Recover from stress response
• Mindfulness
• Breathing
• Muscle relaxation
• Exercise
• Emotional support

Dealing with stressors
Start by identifying what you find stressful
- External situations? e.g. Email overload
- Internal experiences?
  - Thought e.g. I'm going to fail
  - Emotion e.g. Fear
  - Memory e.g. Memory of road accident
  - Sensation e.g. Heart racing

A combination of both internal/external
How do you deal with these stressors?
Look for patterns in what you wrote down on your homework record

Coping: Our mind helping us to survive
Our mind
- Makes plans, invents things, analyses problems, shares knowledge
- Learns from past experiences, describes new futures
- Identifies potential threats
- Discovers ways to help us prevent these threats by controlling our external environment
- Keeps us warm, sheltered, fed, safe, healthy

Generally it is helpful

The mind’s coping habit: Control
Our mind tries to control anything we don’t like
- Where you will be posted?
- What strategies do you use to control:
  - Thoughts?
  - Emotions?
  - Memories?
  - Sensations?

Common Control Strategies for internal experiences
- Fight
  - Suppression (pushing experiences away)
  - Arguing (with your own thoughts/reality)
  - Taking Charge (snap out of it, positive thinking)
  - Self bullying (you should know better than this)
- Flight
  - Hiding/escaping (e.g. drop out of course)
  - Distraction (focus on something else, e.g. putting on music)
  - Zoning out/Numbing (disengaging/sleeping, taking medication/drugs)

Our mind also tries to control our inner world

Do we have control over everything?
- The weather?
- Other people’s actions?
- Where you will be posted?

In these situations, we only have control over our actions

Our mind also tries to control our inner world
What strategies do you use to control:
- Thoughts?
- Emotions?
- Memories?
- Sensations?
Emotional control and policing

"Toughen up"

Police officers jobs require them to control their emotional reactions, even when faced with very emotionally overwhelming situations. Being seen to be strong is important. Officers don't talk candidly about difficult internal experiences. This gives the impression that we can control our thoughts, memories, emotions and sensations.

But to what extent can we control our inner world?

Emotional control and policing

Thoughts, memories, emotions and sensations:
- The more we try to control them, the more they come back
- The more we try to get rid of them, the more we experience them

The goal of this program is not to eliminate this distress, but to understand and manage it better.

Common Police Struggles:
- Challenging experiences:
  - Memories – traumatic experiences
  - Emotions - shock, frustration, sadness, anger
  - Thoughts, emotions and sensations:
    - Try to think about it
    - Try to control your emotions
    - Try to control your thoughts
    - Try to control your sensations

Different Rules:
- The Rule of Internal Experience:
  - If you're not willing to have it, you'll have it (more intensely)
- The Rule of External Experience:
  - If you're not willing to have it, you can usually get rid of it.

Additional Distress: Initial Distress vs Struggle
- Initial Distress:
  - The discomfort gets bigger when we try to control things we cannot control (eg, internal experiences)
- Struggle:
  - Becomes disconnected from important things
  - Struggling with them creates additional distress

Illusion of Control:
- Trying not to think about "I'm a failure"
- Trying to make yourself love someone?
- Trying to block out the memory of how you got here today
- Trying to numb your leg

Rule of Internal Experience:
- If you're not willing to have it, you'll have it (more intensely)
- If you're not willing to have it, you can usually get rid of it.

Initial Distress vs Struggle:
- The discomfort gets bigger when we try to control things we cannot control (eg, internal experiences)
- The goal of this program is not to eliminate this distress, but to understand and manage it better.
Our solution can become a problem!

In moderation

If they work

If they conflict with your values (eg smoking and staying healthy)

When we don’t have control (eg internal experiences)

How others respond to me

How others behave with respect to other people

Physical pain

How I speak with other people

What I say in a situation

How I feel

What other people value and care about

How I respond to other people

Others being on time

The choices I make

What someone else is thinking

The weather

The direction I want my life to take

Memories of accidents arising when I pass the location

The choices others make

Who am I in a situation

What is my role in these events?

Who am I in these situations?

How do I respond to other?

Who am I in these experiences?

Who am I in these events?

Who am I in these situations?

Who am I in these situations?

How did others respond to me?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?

How were other people involved?

How were other people affected?
Acceptance – letting go of the struggle

Acceptance – letting go of the struggle

Acceptance of external experiences

- Opening yourself up to the present reality
- Does not mean:
  - Resigning yourself to something you like it
  - E.g. Parent has died – need to accept the reality of the situation

Acceptance of internal experiences

- Being willing to experience difficult emotions, thoughts, memories and sensations
- Not attempting to avoid, suppress, or push away experiences

Negative emotions, memories, sensations and thoughts are like bees without stingers. They seem scary. Do you really have to run from them? If you can’t run, do you really have to walk?

What is the consequence when you don’t accept?

Acceptance – letting go of the struggle

Acceptance – letting go of the struggle
Acceptance coping strategies

Strategies to help you accept unpleasant experiences:

- Mindfulness
- Defusion
- Making Sense

Mindfulness (Noticing)

- Observing different aspects of the stressor
- Noticing sensory sensations
- Noticing thoughts, feelings, memories and sensations
- Noticing when you are fused with a thought

Defusion

- When we are fused with a thought, it:
  - Seems like the truth (e.g., "I am a failure")
  - Seems like a threat that's happening right here and now
  - Appears very important, requiring all your attention
  - Influences your behaviour unconsciously/automatically
  - You won't let go of it even if it worsens your life
  - It becomes like a command you have to obey or a rule you have to follow

Acceptance – Mindfulness (Noticing)

- Accepting attitude
  - Without judgement or attempting to change anything

How mindfulness helps with acceptance

- A way of being with things
- Going to the experience helps you to notice that there is not actually a problem
- Also brings you back to present moment so you can reconnect with values and做出 action, or decisions, based on your present moment.
- Notice that there is not actually a problem
- Acceptance helps you to cope with unpleasant experiences

Acceptance/Defusion

- Main goal:
  - Accepting unpleasant experiences
  - Moving from fusion to defusion to change anything

Grounding/defusion

- Grounding helps you to accept unpleasant experiences

- Notice different aspects of the stressor
- Notice thoughts, feelings, memories and sensations
- Notice when you are fused with a thought
- Notice how the mind works
- Notice the body (e.g., "I am a failure")
Defusion – Seeing thoughts as thoughts

When we defuse a thought, we recognize that the thought:

- May or may not be true
- Is definitely not a threat to you
- Is not something happening in the physical world – it's merely words or pictures inside your head
- May or may not be important – you have a choice as to how much attention you pay it
- Is definitely not a command you have to obey or a rule you have to follow!

The thought is easier to accept:

- You are able to allow it to come and go without any need to hold on to it or push it away
- The thought has less influence over your behaviour
- You can choose actions aligned to your values instead
- When you can act despite your thoughts

Defusion exercises:

Thoughts on the Paper exercise

Write it down

"I am noticing that I am having the thought that"

Happy Birthday

Milk Milk Milk

Mind train

What about .. Challenging the thought?

- Sometimes people try to challenge distressing thoughts by:
  - Evaluating evidence for and against the thought
  - Developing a new way of thinking
- If works for you (e.g. if you discover the thought is irrational)
  - Do it
- If not – there is no point going to war with your thoughts

Acceptance – Rebuilding

Sometimes difficult situations and traumatic events can bring with them great loss and change:

E.g. Death of partner or posting to another town

We are able to rebuild when we:

- Face the reality of your situation
- Reflect on why this is important to you (values)
- Talk it through with somebody
- Learn from and make sense of the experience
- Rebuild your life and carry on with a new sense of hope and purpose
- Carry on with a new sense of hope and purpose
- Set new goals (consistent with your values)
- Rebuild your life
- Carry on with a new sense of hope and purpose
- Needs a lot more work

Rebuild your life

Carry on with a new sense of hope and purpose

Set new goals (consistent with your values)

Values

Goals

Outcome

Stress

Recover from stress response

• Mindfulness
• Breathing
• Muscle relaxation
• Exercise
• Emotional support

Deal with the stressor

1. What are the stressors?
  - Write them down
2. Do you have control?
  - Yes
  - No

Action

Accept

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?

Thoughts on the Paper exercise

Defusion – Seeing thoughts as thoughts

Defusion

Mind train

Blink

Happy Birthday

I am noticing that I am having the thought that

Annoyed

When will it stop?
Strategies to change/control the stressor

○ Getting advice
○ Problem solving
○ Planning
○ Conflict resolution

Action – Getting Advice

Explore the problem first

○ What is causing it?
○ What can I do about it?
○ What are the likely consequences?

For yourself, organisation, operations, family and friends

○ How could I intervene?
○ Is it worthwhile intervening?

Are the Benefits > Costs

Action – Problem Solving

How do you typically solve problems?

- Brainstorm possible solutions
- Evaluate each approach
  - Consider values and likely outcomes
  - map out pros/cons for you and others
- Select the best approach
- Plan how to implement it
  - Draw on planning skills
- Take Action
  - one step at a time
  - draw on interpersonal skills
- Monitor and adjust

Action – Planning

How do you make things happen?

- Achieve your goals
- How do you make things happen?

Goal Setting

Planning for difficult situations:

- Specific
  - What am I planning to do?: Break down large goals into specific steps
  - Why: Clarify the purpose or benefits of accomplishing the goal
  - Who: Who else needs to be involved?
- Measurable
  - How will I know if I have achieved the goal?
- Attainable
  - Do I have the ability and resources to achieve the goal?
  - Does it fit with other commitments?
- Relevant
  - Is it important to me?
  - Is it consistent with my values?
- Timely
  - When will each step be completed?

Action Coping Strategies

- Action: Getting advice
  - What can you think of?
  - If you don’t have the answers
    - can you share the answers
  - is it workable or important?
  - how could I implement it?
  - can I code the intervention?
  - can I have the necessary resources?
  - what can I do if it?
  - What is causing it?
  - explore the problem first
- Planning
  - draw on planning skills
  - planning to control the stressor
- Problem solving
  - draw on interpersonal skills
Planning for difficult situations:

Getting things done

- Allocate time to complete tasks
  - at the time of day when you work best
  - be realistic about how long tasks take
  - If you need help arrange this ahead of time

- Plan ahead for distractions and setbacks
  - Try to finish with some time to spare
  - Learn to say no (see conflict resolution)

- Prioritise tasks
  - Can't do everything
  - Classify as Urgent, Important
  - Prioritise important tasks

Get started

- Accept worry associated with uncertainty
- Start with a small task
- Reward yourself for progress

Action – Conflict Resolution

- How do you resolve conflict?
- How do you keep your relationships strong?

We will cover this in the next workshop

Values

- Stress
  - Recover from stress response
    - Mindfulness
    - Breathing
    - Muscle relaxation
    - Exercise
    - Emotional support
  - Deal with the stressor
    1. What are the stressors? (Internal/external)
       - Write them down
    2. Do you have control?
       - Yes
       - No
       - Action
         - Getting advice
         - Problem solving
         - Planning
         - Conflict resolution
       - Accept
         - Mindfulness
         - Defusion
         - Rebuilding

Supported by

1) Self Awareness
2) Healthy Relationships

Next Workshop

- April 5
  - Conflict Resolution and Interpersonal Skills
  - Coping with Common Stressors in General Duties policing
  - Preparing for placement

Practicing – Weekly

- Habits only change with practice
- How are you going to do things differently?
- Write down your current habits
- How do you keep your stressors under control?
- How do you resolve conflict?
- How do you maintain your relationships?

Weekly Homework (Sunday night?)

- Write down your current stressors
- Assess how much control you have
- Select and implement strategies to deal with the stressors

5 minute quiz

We want to make sure you understand

Supported by

1) Self Awareness
2) Healthy Relationships

Next Workshop

- April 5
  - Conflict Resolution and Interpersonal Skills
  - Coping with Common Stressors in General Duties policing
  - Preparing for placement

Practicing – Weekly

- Habits only change with practice
- How are you going to do things differently?
- Write down your current habits
- How do you keep your stressors under control?
- How do you resolve conflict?
- How do you maintain your relationships?

Weekly Homework (Sunday night?)

- Write down your current stressors
- Assess how much control you have
- Select and implement strategies to deal with the stressors

5 minute quiz

We want to make sure you understand

Supported by

1) Self Awareness
2) Healthy Relationships
Coaching Phone Calls

Sunday Feb 17 to Thursday Feb 21

“Expect our call at the time you selected. We will review your initial homework record. We will review your initial homework record. Your experience with stress recovery exercises...”

Mindfulness, Breathing and Muscle Relaxation

Workshop review

Clarification - Prepare questions to ask

Feedback Form

Thank you for your participation

Feedback Form

Questions

Evaluation Form

Thank you for your participation

Feedback Form

Evaluation Form

Questions

Thank you for your participation

Feedback Form

Evaluation Form

Questions

Thank you for your participation
Workshop 3

Stress resilience training for police recruits

Agenda for Workshop 3

- Workshop 1 & 2 Review
- Interpersonal skills
  - Typical interpersonal difficulties
  - Traditional reactions to interpersonal difficulties
  - Interpersonal coping skills and practice scenarios
- 5 min break
- Preparing for placement
  - Practice scenarios
- Wrap up
  - Quiz, Learning plan AND Workshop feedback

Workshop Rules

- Confidentiality
- Respect
- Active participation
  - Ask questions
  - Make this work for you!

Why are we doing this?

- Police officers face a stressful work environment
- Chronic stress has serious consequences for:
  - Mental health
    - PTSD prevalence rates for police officers exposed to trauma between 7% (NIOSH 2006) and 13% (Robinson et al. 1997)
    - Partial PTSD has been identified in up to 34% of police officers exposed to trauma (Carlier et al. 1997)
  - Physical health
  - Relationships with others
  - Performance

Workshop 1 & 2 Review

- Practice/Weekly homework sheet
  - Resilience requires practice
  - Which strategies have you been practicing to help you cope with study stress etc?
  - What are you doing differently?
- How has the training helped you to
  - Pursue your values?
  - Achieve your goals?
Interpersonal stress

- Stress involving others
- What would you find difficult?
  - At work?
    - The criminal justice system
    - With colleagues
    - With superiors
  - Outside of work
    - Family and friends

Common interpersonal difficulties
- The System
  - Dealing with members of the public
    - Abusive
    - Manipulative
    - Complaints about you
  - Court system
    - Being cross examined on the stand

Common interpersonal difficulties
- Colleagues
  - Working with unprofessional colleagues
  - Bullying and exclusion
  - Relationship breakup with a colleague
  - Colleagues complain that you are a favourite of the boss

Common interpersonal difficulties
- Superiors
  - Personality clashes
  - Your supervisor
    - Appears to favour other officers
    - Is overly critical and not supportive
    - Blames you unfairly for someone else’s mistake

Common interpersonal difficulties
- Family and friends
  - Poor boundaries (working all the time)
  - Taking family and friends for granted
  - Lack of quality time
  - Financial difficulties at home
  - Division of responsibilities
Healthy relationships

What do you think gets in the way?
What helps?

Healthy relationships – Barriers

- Poor listening
  - Listening through a filter (e.g., superiority, evaluation)
  - Interrupting others before they get a chance to express themselves
- Invalidating others
  - Rejecting, ignoring or judging others’ experiences
- Trying to control others
  - Their behaviour and their perceptions
- Putting up walls
  - Not expressing yourself (for fear of rejection)
- Breaking commitments (and trust)
- Gossiping about others

Healthy relationships – What helps

- Active Listening
  - Lean forward, maintain eye contact
  - Acknowledge what was said
  - Seek clarification
- Expressing Empathy
  - Put yourself in your friend’s position
  - Try to understand their experience
  - Show that you understand and have heard them
  - Respect how they feel, even when this is different to how you would feel
  - Hold back from offering solutions unless asked

Additional Interpersonal Skills

- De-escalation - STOP
- Perspective Taking
- Conversation planning
- Assertiveness
- Conflict Resolution and Negotiation
- Mental Health First Aid

STOP – De-escalation

- Stop and step back
- Take a breath
- Observe (as if you were a third party)
- Plan how to respond
  - Put your values into play

Perspective taking

- Picture someone who has upset/annoyed you
  - Imagine what it would be like to be them?
Planning the conversation

- When you need to talk to someone how much thought do you give to what you are going to say beforehand?
- What do you think about?

Planning the conversation

- What is your goal in this interaction?
  - How does this relate to your values
  - Balance different values: winning v relationships
- What about the other person?
  - What are their goals?
  - What are their values?
  - How might they respond?
- What are you going to say?
  - How will I say it?
  - What will I say?
  - When will I say it?

Scenario 1: De-escalation and conversation planning

- Read the scenario
  - Exclusion/Gossip
- Your normal reaction
  - How would you normally think, feel and react?
- In pairs, apply the following strategies to work out the best way of responding to each scenario
  - S.T.O.P.; Perspective Taking; Conversation Planning
  - Reflection (pairs then group discussion)
  - What was helpful/not helpful

Assertiveness involves

- Valuing yourself and your needs
  - Being willing to speak up
- Respecting others (their needs and values)
- Actively choosing how you respond to others (agreeing or not agreeing)
- Being Assertive is NOT
  - aggressiveness
  - Being passive

Assertiveness example

- Background: Explain why you are making the request or refusal
  - "When you do X, I feel Y because....."
- Request: Clearly state what you are requesting or saying no to
  - "I would really appreciate if you/I could do Z instead, do you agree?"
  - Discuss consequences (positive and negative)
- Invite feedback
- Be thankful for cooperation
- Deliver on your promises

What about when others don’t respect your needs? (see workbook)

Scenario 2: Assertiveness

- Read the scenario
  - Rostered to work on your brother’s wedding day
- Your normal reaction
  - How would you normally think, feel and react?
- In pairs, Roleplay with the person next to you how you might use Assertiveness in this scenario (review notes on assertiveness before you start)
- Reflection (pairs then group discussion)
  - What was helpful/not helpful
Conflict resolution

- Reasons for conflict:
  - Competition for limited resources
  - Personal differences
  - Lack of information or incorrect information
  - Role conflict
- Approaches to resolving conflict

<table>
<thead>
<tr>
<th>Concern for Self</th>
<th>Concern for Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Competing</td>
</tr>
<tr>
<td></td>
<td>Collaborating</td>
</tr>
<tr>
<td>Low</td>
<td>Avoiding</td>
</tr>
<tr>
<td></td>
<td>Accommodating</td>
</tr>
</tbody>
</table>

Negotiation skills

- Understand your own position
  - Your interests/values
  - Your alternatives – if you don’t reach an agreement
- Use active listening techniques
  - Obtain information about other parties interests/alternatives
  - Take note of nonverbal messages
- Brainstorm as many options as possible
  - Separate brainstorming from evaluation
- Evaluate each option
  - Against interests (yours and theirs), standards/policies, alternatives (yours and theirs)
- Make offers and counter offers
  - Acknowledge position of other party
  - Trade off what is in their interest for what is in your interest
  - Never accept an agreement worse than your best alternative

Scenario 3: Conflict Resolution and Negotiation

- Read the scenario
  - Partner complaint “You are not spending enough time with family”
- Your normal reaction
  - How would you normally think, feel and react?
- In pairs, Roleplay with the person next to you how you might use the following strategies in this scenario
  - Assertiveness; Conflict Resolution; Negotiation Skills (review notes before you start)
- Reflection (pairs then group discussion)
  - What was helpful/not helpful

Helping people with Mental Health Issues

- Mental Illness
  - Diagnosable condition that causes major changes in a person’s normal ways of thinking, feeling and behaving, which interferes with the persons ability to get on with life and lasts longer than would be normally expected
  - 45% of the population will experience mental illness at some stage in their lifetime

Mental Health First Aid Skills

1. Approach the person
  - Arrange to meet in a comfortable, private place
  - Aim to support the person
  - Don’t expect that the person will change anything straight away
2. Discuss your concerns
  - Tell the person what you have noticed and suggest you think there may be a problem
  - Say you want to help, and are happy to listen if they want to talk
  - Be non-judgmental and avoid offering solutions

12 month prevalence (20%)

- Anxiety disorders (20%)
  - Phobia (20%)
  - Generalized Anxiety (14%)
  - Obsessive Compulsive Disorder (4%)
  - Post Traumatic Stress Disorder (4%)

- Depression (17%)
  - Major Depressive Episodes (17%)
  - Recurrent Depressive Disorder (17%)

- Substance use disorders (9%)
  - Alcohol Dependence (6%)
  - Drug Dependence (6%)

Helping people with Mental Health Issues

- National Survey of Mental Health and Wellbeing, 2007

Mental Health First Aid Skills

1. Approach the person
  - Arrange to meet in a comfortable, private place
  - Aim to support the person
  - Don’t expect that the person will change anything straight away
2. Discuss your concerns
  - Tell the person what you have noticed and suggest you think there may be a problem
  - Say you want to help, and are happy to listen if they want to talk
  - Be non-judgmental and avoid offering solutions
Mental Health First Aid Skills

3. Suggest professional support
   • Instill hope that a professional could help them (Benefits of early treatment)
   • Discuss options (GP, Psychiatrist, Psychologist, EAP specialist) and offer to assist them to make the call/first visit

4. Follow-up
   • Check-in and be persistent
     ○ Find out how appointments went
     ○ Suggest trying another professional if person not satisfied
   • Don’t spend all your time with the person talking about the problem

Dealing with different reactions

- Relief, denial, anger, avoidance, admittance
- If negative – Be supportive/ Don’t argue
- Explore resistance and acknowledge strengths
- Suicidal thoughts and behaviours - If they have a plan, do not leave them alone, get emergency support

Based on Mental Health First Aid Guidelines, 2008

Scenario 4: Mental Health First Aid

Read the scenario
   • “Friend appears depressed and anxious”
Your normal reaction
   • How would you normally think, feel and react?
In pairs, Roleplay with the person next to you how you might use the following strategies in this scenario
   ○ Approach, Discuss, Help Options, Follow-up (review First Aid guidelines before you start)
Reflection (pairs then group discussion)
   • What was helpful/not helpful

Using other coping skills

Review all four interpersonal scenarios
   • For associated internal and external stressors
   • What other coping skills could help?
     ○ Acceptance Strategies
     ○ Action Strategies
   • Paired discussion
   • Share with Group

Break

We will resume in 5 min

Values

Stress

Recover from stress response

Deal with the stressor
   1. What are the stressors?
      (Internal/external)
      Write them down
   2. Do you have control?
      Yes
      No

Action
   • Getting advice
   • Problem solving
   • Planning
   • Interpersonal Skills

Accept
   • Mindfulness
   • Defence
   • Meaning Search
   • Reorganising

Supported by
   1) Self Awareness
   2) Healthy Relationships

Refer to Handout
Preparing for placement

- Practice applying the overall model to a range of common police scenarios
  - Personal Reflection
  - Small Group discussion (groups of 3/4)
  - Report back to bigger group

Scenario 1: Video - Fatal accident

- Complete initially in private then discuss in groups
- Write down what you would find stressful
  - External – Aspects of the scenario
  - Internal - Thoughts, feelings, memories
- Identify what you have/do not have control over?
- What coping strategies would you use?
  (acceptance/action)
  - During then After

Scenario 2: Arrest (sexual assault)

- Complete initially in private then discuss in groups
- Write down what you would find stressful
  - External – Aspects of the scenario
  - Internal - Thoughts, feelings, memories
- Identify what you have/do not have control over?
- What coping strategies would you use?
  (acceptance/action)
  - During then After

Scenario 3: Video – Busy shift

- Complete initially in private then discuss in groups
- Write down what you would find stressful
  - External – Aspects of the scenario
  - Internal - Thoughts, feelings, memories
- Identify what you have/do not have control over?
- What coping strategies would you use?
  (acceptance/action)
  - During then After

Scenario 4: Death message

- Complete initially in private then discuss in groups
- Write down what you would find stressful
  - External – Aspects of the scenario
  - Internal - Thoughts, feelings, memories
- Identify what you have/do not have control over?
- What coping strategies would you use?
  (acceptance/action)
  - During then After
5 minute quiz

- We want to make sure you understand the skills
- Any questions?

Practicing the skills on placement

- Habits only change with practice
  - Your Learning Plan – Coach each other
  - How could these skills help you to achieve your goals?
  - How will you remember to practice these ways of coping?
- Weekly Homework (Sunday night?)
  - Write down your current stressors
  - Assess how much control you have
  - Select and implement strategies to deal with the stressors

Coming Up

- May 8? (Final Workshop)
  - Placement debriefing
  - Dealing with stress associated with critical incidents and investigations
  - Program Review
  - Questionnaire 2
- Mid May (Final Coaching Call)

Feedback

- Thank you for your participation
- Evaluation Form
- Questions

Conflict resolution (cont.)

- Which style you use depends on
  - The nature of the conflict
  - How much time you have
  - Are there many options
  - What do you agree on?
  - The nature of the relationship
  - Is it important to you?
  - Do you and the other party trust each other?
  - Do you have power in the relationship?
  - Your goals and values

Lifetime Mental Illness (45%)

National Survey of Mental Health and Wellbeing, 2007
12 month prevalence (20%)

National Survey of Mental Health and Wellbeing, 2007

Sub clinical – Stress

- 12 percent of Australians report experiencing levels of stress in the severe range
- Major stressors relate to finance, health, family, relationships and the workplace
- Young adults report being more stressed than the overall population, especially about work

Stress and wellbeing in Australia, APS, 2011

Scenario 5: Questionable behaviour

- Complete initially in private then discuss in groups
- Write down what you would find stressful
  - External – Aspects of the scenario
  - Internal - Thoughts, feelings, memories
- Identify what you have/do not have control over?
- What coping strategies would you use?
  (acceptance/action)
  - During then After
Workshop 4
Coaching Phone Call Sign up

Signup sheet
Put your name against a time
We will call you on your mobile number

When?
6:30pm to 9:30pm
Wed May 8, Mon May 13, Wed May 15,
Thurs May 16, Mon May 20
Each phone call will last 20-30 min
Please be in a quiet location to take the call

Agenda
- Questionnaire 2
- Program review
- Placement debriefing
- Questionnaire 2
- Wrap up

Psychology Research

Purpose
- Evaluate program effectiveness
- Program review
- Placement debriefing
- Questionnaire 2
- Wrap up

Psychology Research

Anonymous

All of your responses are anonymous

Unique code
We will ask you a few questions to generate a unique, code, that is un-identifiable
So we can track your progress over time.
Your results will be compared to those who have not completed the training.
The summarized results may also be used for psychology research.

Voter to psychology research

Unique code
We will ask you a few questions to generate a unique, code, that is un-identifiable
So we can track your progress over time.
Your results will be compared to those who have not completed the training.
The summarized results may also be used for psychology research.

If you do NOT wish your responses to be used for research in psychology, please mark the circle below:

I do NOT wish my responses to be used for the purpose of research in psychology.
You have 35 minutes to complete the survey. We will then commence the rest of the workshop.

If you finish early:

Please do not talk.

You may go outside after 25 minutes but be ready to return.

How was your placement?

How did it fit with your values?

What did you learn?

What did you enjoy?

How was your placement?

Mindfulness – revisiting your placement

Describe a challenging experience

Mindfulness – revisiting your placement

What was it about these situations that you found difficult?

What strategies did you use to help you act effectively in these situations and afterwards?

Describe a challenging experience

Internal Experience

Which physical sensations, thoughts, emotions and memories did you find distressing or acted as a barrier to being able to work effectively on placement?

External Experience

What situations and events did you find difficult to deal with on placement?

What kind of strategies / techniques did you engage to assist with distressing or distracting internal experiences?

Confidentiality

Any personal information that other group members hear in or outside of the room (including friends and family members) will be kept confidential. Any contact details shared with the group will be kept confidential. Any personal information that other group members hear will be kept confidential.
Speed Learning – Program Review

Paired discussions at stations
- Half the class doesn’t move
- For each round you have 3 minutes
- Other half goes from one station to the next after each round

Share your answers with the group
- Reinforce and clarify knowledge
- Explore how it relates to your experience
- For each round we have 5 minutes to discuss

Values

Symptoms of stress
- Physical
- Emotional
- Psychological

Goals

Stressor
- If appraised as threat

Consequences of Chronic stress
- Physical
  - Headaches, high blood pressure, heart disease, body open to infection, alcoholism...
- Psychological
  - Anxiety, depression, anger
- Behavioural
  - Productivity, turnover, procrastination, conflict

Paired Discussion – Round 1

Why is it important to be flexible when choosing coping strategies?

Why is it important to:
1. Notice when your “fight flight” stress response gets triggered?
2. Calm down and gather your thoughts
3. Deal with the underlying stressor

Values

You

2) Calm down, gather your thoughts
- Mindfulness
- Breathing
- Muscle relaxation
- Exercise
- Emotional support
3) Deal with the stressor

Supported by
1) Self Awareness
2) Healthy Relationships

Three Steps to Resilient coping

1. Notice when you get stressed
2. Calm down and gather your thoughts
3. Deal with the underlying stressor

Program Review

Learning from your classmates

Break
Paired Discussion – Round 2

Why might the following help you to calm down/gather your thoughts?

- Mindfulness
- Abdominal breathing
- Muscle relaxation

Calming – Mindfulness (Noticing)

Mind

Sensory

Noticing

Attention Regulation
- Refocusing attention to different aspects of immediate experience (Thoughts, feelings and sensations)

Orientation/Attitude
- Gently, like a friendly scientist, observe with curiosity, without judgement or attempting to change anything

Calming – Breathing

When we are anxious/stressed, we tend to overbreathe. This leads to dizziness, confusion, increased heart rate, blurred vision, breathlessness. Therefore, it is important to slow breathing down.

- Deep, slowed breathing
- Get comfortable
  - Stomach breathing
  - Breathe in through nose (4 seconds)
  - Hold
  - Breathe out fully (4 seconds)

Calming – Muscle Relaxation

Learning to relax your muscles
- Involves tensing and relaxing a series of different muscle groups
- By alternating between tension and relaxation, you will learn to discriminate between these two states and become more aware of tense body areas
- With practice, you can achieve a sense of muscle relaxation quickly

Paired Discussion – Round 3

Dealing with the stressor

What do we mean by internal v external stressors?

- How much control over these do we have?
- What is the problem with trying to control things that cannot be controlled?
- What is the alternative to control?

Dealing with stressors

Start by identifying what you find stressful.

- External situations?
  - E.g. Email overload
- Internal experiences?
  - Thought e.g. I’m going to fail
  - Emotion e.g. Fear
  - Memory e.g. Memory of road accident
  - Sensation e.g. Heart racing

A combination of both internal/external factors.

Mind’s coping habit: Control

But to what extent do we have control?
Additional Distress

Initial Distress v Struggle

The discomfort gets bigger when we try to control things that we cannot control (e.g. internal experiences).

The goal of this program is not to eliminate this distress.

Acceptance

Internal experiences
External experiences

Difficult situations and traumatic events can bring loss, frustration, despair. They can be hard to accept. ("It shouldn’t be this way").

Acceptance is about opening yourself up to reality. It doesn’t mean:
○ Resigning yourself to something
○ That you like it

Negative emotions, memories, sensations and thoughts are like bees without stingers. They seem scary. Do you really have to run from them?

Mindfulness

You
Stress
Recover from stress response
• Mindfulness
• Breathing
• Muscle relaxation
• Exercise
• Emotional support

Deal with the stressor
1. Write down the stressors (Internal/external)
2. Do you have control?
   • Yes
   • No

Action
• Getting advice
• Problem solving
• Planning
• Rebuilding
• Interpersonal Skills

Accept
• Mindfulness
• Defusion
• Making Sense

Supported by
1) Self Awareness
2) Healthy Relationships

Parad Discussion – Round 4

Acceptance strategies

"How does mindfulness make it easier to accept unpleasant internal experiences?"

What is defusion? How can it help you to accept difficult thoughts?

What do we mean by ‘making sense of difficult situations’? How might this help you to persist when you face setbacks and loss?

Mindfulness

Notice when your automatic reactions are unhelpful
○ When you are trying to control something that you can’t control

Obtain a broader perspective on what is happening
○ Space to discover better ways to respond
○ Choose to respond differently
○ Space to discuss paper & pen responses

Acceptance exercises

• Observe a broader perspective on what is happening
• Notice when your automatic reactions are unhelpful
• Choose to respond differently
• Space to discuss paper & pen responses

Values

You
When we defuse a thought
We recognise that the thought:
"May or may not be true"
"Is definitely not a threat to you"
"Is not something happening in the physical world – it's merely words or pictures inside your head"
"May or may not be important – you have a choice as to how much attention you pay it"
"Is definitely not a command you have to obey or a rule"
The thought is easier to accept:
"You are able to allow it to come and go without any need to hold on to it or push it away"
The thought has less influence over your behaviour
You can choose actions aligned to your values instead

Making Sense of difficult situations
Reflect on why the situation is so difficult*
○ Write it down
○ How does it relate to your values and goals
Face the reality of the situation
○ If it cannot be changed, consider the cost of not accepting it on other goals/values
What can you learn from the situation?
○ Could you do something different in future?
If the situation involves a setback or loss
○ Start taking steps to rebuild (See Action Strategies)
* If you can’t think clearly, engage other coping strategies
○ Mindfulness, Defusion, Seek emotional support

Action strategies to address problems
What could you do if you don’t have enough information to decide how to respond?
What are the 5 steps involved in problem solving?
What does a ‘S.M.A.R.T’ goal refer to?
How can rebuilding help you regain motivation after setbacks and loss?

Action – Getting Advice
Explore the problem first
○ What is causing it?
○ What can I do about it?
○ What are the likely consequences?
For yourself, organisation, operations, family and friends
○ How could I intervene?
○ Is it worthwhile intervening?
Are the Benefits > Costs
If you don’t have the answers
○ Who can you talk to?

Problem solving for difficult situations
Brainstorm possible solutions
Evaluate each approach
Consider values and likely outcomes
Map out pros/cons for you and others
Select the best approach
Plan how to implement it
Draw on planning skills
Take Action one step at a time
Draw on interpersonal skills
Monitor and adjust

Planning for difficult situations:
Goal Setting
S
pecific ○ What am I planning to do?: Break down large goals into specific steps ○ Why: Clarify the purpose or benefits of accomplishing the goal ○ Who: Who else needs to be involved?
M
easurable ○ How will I know if I have achieved the goal?
A
ttainable ○ Do I have the ability and resources to achieve the goal?
○ Does it fit with other commitments?
R
elevant ○ Is it important to me?
○ Is it consistent with my values?
T
imely ○ When will each step be completed?
Rebuilding – After setbacks or loss

Set new goals (consistent with your values)

Values

Goals

Outcome

Paired Discussion – Round 6

Interpersonal action strategies to address problems?

What does S.T.O.P. stand for and how could it help with interpersonal difficulties?

What is perspective taking and how could it help?

Why bother planning a difficult conversation? How could negotiation skills help and what is involved in negotiation?

 STOP – De-escalation

S top and step back

T ake a breath

O bserve (as if you were a third party)

P lanning the conversation

Workshop 6/7/8

With a mental illness, what could you do?

If you notice a colleague or family member struggling, what could you do?

What about the other person? What are their goals? How might they respond?

What are you going to say?

What will I say?

How will I say it?

What are they going to say?

Where are they going to be?

Who are they going to say it to?

How will they respond?

What is your goal in this interaction?

What is your goal in this interaction?

What will I say?

How will I say it?

What will the other person say?

Why bother planning a difficult conversation? How could negotiation skills help and what is involved in negotiation?

Workshop 6/7/8

With a mental illness, what could you do?

If you notice a colleague or family member struggling, what could you do?

What about the other person? What are their goals? How might they respond?

What are you going to say?

What will I say?

How will I say it?

What will the other person say?

How will they respond?

What is your goal in this interaction?

What is your goal in this interaction?

What about the other person? What are their goals? How might they respond?
1. Approach the person
2. Discuss your concerns
3. Suggest professional support
4. Follow-up

Mental Health First Aid Skills

Next Steps

Coaching Call

Please be in a quiet location for the call
Bring to the call concerns, questions to clarify

Questionnaire 3

September

Pick a number

* Write it down
* Between 1 and 63

Deal*with*the*stressor*
Write down the stressors
(Internal/external)
Do you have control?

Yes
No

Action*
Getting advice*
Problem solving*
Planning*
Rebuilding*
Interpersonal Skills*

Accept*
Mindfulness*
Defusion*
Making Sense*

Supported by
Self Awareness
Healthy Relationships

S.T.O.P
Perspective Taking
Conversation Planning
Assertiveness
Negotiation

Values
You

Notice when you get stressed
Calm down, gather your thoughts
Mindfulness
Breathing
Muscle relaxation
Exercise
Emotional support

Goals

Stressor

Over to You!

Wrap up

Follow-up

Suggestions for support
Discuss your concerns
Approach the person

Notice when you get stressed
Calm down, gather your thoughts
Mindfulness
Breathing
Muscle relaxation
Exercise
Emotional support

Goals

Stressor

Over to You!
Practicing

"How are you going to remember and apply what you have learnt?"

Support

If you experience distress during the course of your training, you can contact:

- Lifeline on 131114
- Chaplain (Stephen Neuhaus – 4828 8622)
- CSU support services (Estelle Anderson - 0419 658 508)

Feedback Form

Questions

Evaluation Form

Thank you!
Values – Summary

- Values represent what is important to us.
- We feel motivated to work on goals that are linked to our values.
- Stress is a normal part of life.
- When we perceive a threat to a valued goal, stress may arise.
- We endure stress in pursuit of our values.
- Being a police officer is linked to your values.

Values – what matters to you

Program Summary

Values – what matters to you

- We need to learn how to manage stress so we can continue pursuing valued goals.
- When we perceive a threat to a valued goal, stress may arise.
- Stress is a normal part of life.
- We feel motivated to work on goals that are linked to our values.
- Values represent what is important to us.

Program Summary

Police Recruits: Effectiveness Training for Stress Resilience and Life
Internal stress response symptoms

Stressors
- Sensation e.g. Heart racing
- Emotion e.g. Fear
- Memory e.g. Memory of being fired
- Thought e.g. I'm going to fail
- Internal experiences
- External to the body (e.g. can't pay mortgage)

The stress response is triggered by stressors

Values

Symptoms of stress
- Physical
- Emotional
- Psychological

Goals

Stressor

If appraised as threat

Consequences of chronic stress
- Physical
  - (Headaches, high blood pressure, heart disease, body open to infection, alcoholism...)
- Psychological
  - (Anxiety, depression, anger...)
- Behavioural
  - (Productivity, turnover, procrastination, conflict...)

The problem with stress is when it becomes chronic...
Resilience

Coping with stress in ways that enable you to
  • bounce back from the stress and
  • persist with valued actions

Acknowledges that some stress is
  • an inevitable part of life
  • attempting to remove all stressors is unhelpful

Some people are more resilient than others
  • We learn habits through observing others (eg parents)
  • Not everyone has been exposed to adaptive coping

Coping

Adaptive
  • helps us to deal with stress
  • enables us to pursue our goals
  • provides feedback on failed tests
  • does not help us deal with stress

Maladaptive
  • does not help us deal with stress
  • gets in the way of our valued goals
  • does not help everyone to deal with stress

Values

Notice
Your

Three Steps to Resilient coping

1) Calm down from the stress response

   • Take a 5 minute break
   • Don't react straight away

2) Deal with the stressor

   • Supported by
     • Self Awareness
     • Healthy Relationships

   • Example: Getting feedback on failed test

3) Reinstate

   • Example: Getting drunk after failing test
   • Gets in the way of our valued goals
   • Doesn’t help everyone to deal with stress

   • Helps us to deal with stress
   • Provides feedback on failed tests

Everyone has been exposed to adaptive coping

Some people are more resilient than others

We learn habits through observing others (eg parents)

Adapting to more stressful situations is impossible

Acknowledges that some stress is

persist with valued actions

Coping with stress in ways that enable you to
Calming – Mindfulness (Noticing)

Attention Regulation
○ Refocusing attention to different aspects of immediate experience (thoughts, feelings and sensations)

Orientation/Attitude
○ Gently, like a friendly scientist, observe with curiosity, without judgement or attempting to change anything

Calming – Breathinh
When we are anxious/stressed, we tend to over breathe
This leads to diziness, confusion, increased heart rate, breathlessness

Therefore it is important to slow breathing down

Deep, slowed breathing
○ Get comfortable
○ Stomach breathing
○ Breathe in through nose (4 seconds)
○ Hold
○ Breathe out fully (4 seconds)

Calming – Muscle Relaxation
Learning to relax your muscles
○ Involves tensing and relaxing a series of different muscle groups
○ By alternating between tension and relaxation you will learn to discriminate between these two states and become more aware of tense body areas
○ With practice you can achieve a sense of muscle relaxation quickly

Values
You
Stress
Recover from stress response
• Mindfulness
• Breathing
• Muscle relaxation
• Exercise
• Emotional support

Deal with the stressor
1. What are the stressors? (internal/external)
   Write them down
2. Do you have control?
   Yes
   No
   Action
   • Getting advice
   • Problem solving
   • Planning
   • Rebuilding
   • Interpersonal skills

Accept
• Mindfulness
• Defusion
• Making sense

Supported by
1) Self awareness
2) Healthy relationships

Calming – Mindfulness (Noticing)
Dealing with stressors

Start by identifying what you find stressful!

External situations?
- Email overload

Internal experiences?
- Thought: I'm going to fail
- Emotion: Fear
- Memory: Memory of road accident
- Sensation: Heart racing

A combination of both internal and external

Thoughts:
- How successful are you?
- Can you really block out?

Memories:
- What you were doing the last time this happened

Emotions?
- How do you feel when this happens?

Sensations:
- Do you feel anxious?
- Can you really stop feeling anxious?

The mind's coping habit: Control

Actions
- In these situations, we only have control over our...
- Where you will be posted?
- Other people's actions?
- The weather?

But do we have control over our environment?
- Our minds try to control anything we don't like

Initial distress v Struggle

Initial distress
- The discomfort gets bigger when we try to control things we can't control (e.g. internal experiences)

The goal of this program is not to eliminate this

Additional distress
- Initial distress v Struggle
- External situations
- Internal experiences
- Thought
- Emotion
- Memory
- Sensation
- Start by identifying what you find stressful

And to what extent can we control our inner world?
Acceptance

Mindfulness

Choose to respond differently.

Spaced to discover other ways to respond.

Obtain a broader perspective on what is happening.

When it is trying to control something that you can't control.

Notice when your mind is being unhelpful.

Acceptance coping strategies

Strategies to help you accept unpleasant experiences:

- Mindfulness
- Defusion
- Making Sense

Values

Stress

Recover from stress response

• Mindfulness
• Breathing
• Muscle relaxation
• Exercise
• Emotional support

Deal with the stressor

1. Write down the stressors (Internal/external)
2. Do you have control?
   - Yes
   - No

Action

• Getting advice
• Problem solving
• Planning
• Rebuilding
• Interpersonal Skills

Accept

• Mindfulness
• Defusion
• Making Sense

Supported by

1) Self awareness
2) Healthy relationships

Stressor

Feelings, emotions, memories, sensations, and thoughts are like bees without stingers. Do you really have to run from them?
Defusion – Seeing thoughts as thoughts

When we defuse a thought, we recognise that the thought:

- May or may not be true
- Is definitely not a threat to you
- Is not something happening in the physical world – it’s merely words or pictures inside your head
- May or may not be important – you have a choice as to how much attention you pay it
- Is definitely not a command you have to obey or a rule you have to follow

The thought is easier to accept:

- You are able to allow it to come and go without any need to hold on to it or push it away
- The thought has less influence over your behaviour
- You can choose actions aligned to your values instead

Making Sense of difficult situations

Reflect on why the situation is so difficult
- Write it down
- How does it relate to your values and goals
- Face the reality of the situation
- If it cannot be changed, consider the cost of not accepting it

What can you learn from the situation?
- How does it relate to your values and goals
- What is down

Project on why the situation is so difficult

Defusion – Seeing thoughts as thoughts

Mindfulness, defusion, seek emotional support

If you can think clearly, engage other coping strategies
- Start listing steps to reduce (see action strategies)
- If the situation involves a setback or loss
- Could you do something different in the future?
- What can you learn from the situation?
- If it cannot be changed, consider the cost of not accepting it
- Face the reality of the situation
- How does it relate to your values and goals

What can you learn from the situation?
- How does it relate to your values and goals
- What is down
- How is it down
Action - Getting Advice

Explore the problem first
○ What is causing it?
○ What can I do about it?
○ What are the likely consequences?

For yourself, organisation, operations, family and friends
○ How could I intervene?
○ Is it worthwhile intervening?

Are the Benfits > Costs

If you don’t have the answers
○ Who can you talk to?

Problem solving for difficult situations

Brainstorm possible solutions

Evaluate each approach
○ Consider values and likely outcomes
○ Map out pros/cons for you and others

Select the best approach

Plan how to implement it

Monitor and adjust
○ Draw on planning skills
○ Rebuilding – After setbacks or loss

Set new goals (consistent with your values)

Planning for difficult situations

Goal Setting

Specific
○ What am I planning to do?
○ Break down large goals into specific steps
○ Why
○ Clarify the purpose or benefits of accomplishing the goal
○ Who
○ Who else needs to be involved?

Measurable
○ How will I know if I have achieved the goal?

Attainable
○ Do I have the ability and resources to achieve the goal?
○ Does it fit with other commitments?

Relevant
○ Is it important to me?
○ Is it consistent with my values?

Timely
○ When will each step be completed?
STOP – De-escalation

Stop and step back
Take a breath
Stop and step back

Perspective taking

Imagine what it would be like to be them?
Picture someone who has upset/annoyed you

Perspective taking skill

Negotiation skills

Make offers and counter offers
Evaluate each option
Brainstorm as many options as possible
Assess the other parties position
Understand your own position

Plan the conversation

When will I say it?
When will I say it?
How will I say it?
What are you going to say?
How might they respond?
What are their goals?
What about the other person?
What is your goal in this interaction?

Negotiation skills

Understand your own position
Assess the other party's position
Brainstorm as many options as possible
Evaluate each option
Make offers and counter offers

9/05/13
1. Approach the person
2. Discuss your concerns
3. Suggest professional support
4. Follow-up

Mental Health First Aid Skills

Deal*with*the*stressor*

Write down the stressors (Internal/external)

Do you have control?

Yes
No

Action*

Getting*advice*

Problem*solving*

Planning*

Rebuilding*

Interpersonal*Skills*

Accept*

Mindfulness*

Defusion*

Making*Sense*

Supported by

Self Awareness

Healthy Relationships

S.T.O.P

Perspective Taking

Conversation Planning

Assertiveness

Negotiation

Values

You

Notice when you get stressed

Calm*down,*gather*your*thoughts*

Mindfulness

Breathing

Muscle relaxation

Exercise

Emotional support

Goals

Stressor

Over to You!

Practicing

How are you going to remember and apply what you have learnt?

Wrap up
If you experience distress during the course of your training, you can contact:

- Lifeline on 131114
- Chaplain (Stephen Neuhaus - 4828 8622)
- CSU support services (Estelle Anderson - 0419 658 508)

If you experience distress during the course of your training, you can contact:

Support

Thank you!
Appendix 4

Study 3 Materials
Project Title: Stress Resilience Training

Investigators
Mr Chris Horan Research School of Psychology, christopher.horan@anu.edu.au
Prof Don Byrne Research School of Psychology, don.byrne@anu.edu.au

Aims of the project
The aim of the project is to evaluate the effectiveness of a group training program designed to develop stress resilience in university students. The training program will consist of a 2-hour tutorial in addition to completing a series of short exercises over the next month that are designed to help you practise the skills taught in the tutorial.

In order to evaluate the effectiveness of the training, students will be asked to complete a short questionnaire at three time points: immediately before the tutorial, immediately after the tutorial, and one month later. These questionnaires will ask about your experiences of stress and your use of coping strategies. It is important that you try to answer all the questions.

While attending the tutorial is considered part of the organizational psychology course, practising the skills is voluntary. You may discontinue your participation at any time and withdraw any unprocessed data that you have provided.

Confidentiality Procedures/ Data use and storage
Your responses will be anonymous and no information specific to individual participants will be released to third parties, so far as the law allows. All completed paper questionnaires will be stored in locked filing cabinets and all data will be stored on secure file servers.

The findings from this research will be summarised at group level so it will not be possible to identify individuals who have participated in the research. Research findings may be used to inform the further development of the resilience training program and they may be presented at conferences and in scholarly journals in the fields of clinical psychology, occupational health psychology and education.

Further Assistance
If you would like further information about this research, please contact the investigators listed above. If you experience distress during the course of your studies, you should contact Lifeline on 131114 or the ANU Counselling Service on 6125 2442.

If you have any concerns regarding the conduct of this research please contact:
The Secretary, ANU Human Research Ethics Committee, Research Office, Australian National University, ACT, 0200, Australia
Phone: (61-2) 6125 3427. Email: human.ethics.officer@anu.edu.au
Stress Resilience Training for ANU Organisational Psychology Students

© Chris Horan 2013

Relevance to

- Employee Wellbeing/Stress Management Programs
- Innovations in Workplace Training
- Conducting Applied Research

Personal Relevance

- Develop self awareness of how stress affects you
- Understand how you typically cope with stress

Program Objectives

- Learn new ways of coping with stress
- Practise new ways of coping

Your involvement

- Training Program
  - Introduction workshop
  - Skills practice in between sessions

- Evaluation Questionnaires
  - Before workshop
  - After workshop
  - Diary
  - Final measure

Questionnaires - Anonymous

- All of your responses are anonymous
- Unique code
  - We will ask you a few questions to generate a unique, unidentifiable code, that is unidentifiable
  - So we can track your progress over time, please answer these questions in the same way each time

Psychology Research

- With your consent, the summarised results may be used for psychology research
  - If you do not wish your responses to be used for research in psychology, please mark the circle below:
    - I do NOT wish my responses to be used for the purpose of research in psychology
  - Leave this field blank if you are ok with your anonymous data being included in the research

Organisational Psychology

- Conducting Applied Research
- Innovations in Workplace Training
- Empowering Wellbeing/Leadership Management Programs
Please complete quietly. When you have completed the survey, please return to the tutorial room.
Values, Goals & Tasks

Values are different from goals
• Values provide direction e.g. Being Caring
• Goals are achievable e.g. Registering as a Psychologist

Each Goal can related to
• Many Values
• Many Tasks

Often we forget how the tasks we are working on
• Relate to our goals and values
• Why might this matter?

Values, Goals & Outcomes

Imagine the outcome of your goals is under threat
• How do you feel?  How do you respond?
• If you give up, how do you feel then?

Failure to achieve your goals
• Does not cancel out what you value
  (e.g. If you fail to get into honours would “caring for others” no longer be important to you?)

Stress

Identify your top 5 values:

Your Values

Connecting with nature
Being honest
Being competent and effective
Being physically fit
Showing respect for tradition
Gaining wisdom and a mature understanding of life
Helping others
Having a sense of accomplishment and making a lasting contribution
Eating healthy food
Being self-disciplined and resisting temptation
Creating beauty (in any domain, including arts, dancing, gardening)
Having genuine and close friends
Having an exciting life
Engaging in sporting activities
Showing respect to parents and elders
Promoting justice and caring for the weak
Having relationships involving love and affection
Having life filled with adventure
Acting consistently with my religious faith and beliefs
Meeting my obligations
Being loyal to friends, family and/or my group
Being ambitious and hard working
Having a life filled with novelty and change
Being at one with god or the universe
Maintaining the safety and security of my loved ones
Being wealthy
Being creative
Experiencing positive mood states
Teaching others
Engaging in clearly defined work
Having authority, being in charge
Being self-sufficient
Feeling good about myself
Resolving disputes
Researching things
Having influence over people
Being curious, discovering new things
Leading a stress-free life
Building and repairing things
Managing things
Being safe from danger
Enjoying food and drink
Striving to be a better person
Designing things
Organising things
Working outdoors
Enjoying music, art, and/or drama
Figuring things out, solving problems

Values, Goals & Outcomes
Stress and Values are a package deal

When stress arises we have a choice:
• We avoid stress and abandon our values
• We learn to manage stress so we can continue pursuing our values/goals

Values and Stress

Drawing Source: Joseph Ciarrochi

Let's talk about stress

Put your hand up if you get stressed when you...
• Get caught in a traffic jam and run late for a meeting?
• Have an argument with your partner?
• Have noisy neighbours that interrupt your sleep?
• Run out of money?
• Have to speak in public?
• Get a bad result on a test?
• Have an unrealistic deadline?

What else might be stressful? For you this semester?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

What is a stressor?

A stressor is something that triggers stress

Stressors can be:
• external situations e.g. bullying, poor grades, $$
• internal experiences e.g. thoughts, memories, emotions, sensations

Why don't we just remove all the stressors?

So what is stress?

Appraisal of threat

Two people can be exposed to the same stressor, but experience different levels of stress.

Why?
• Stress is triggered by our appraisals that:
  • The stressor is a threat to something valued
  • We don't have sufficient resources to cope with the threat

Our appraisals are heavily influenced by the past
Internal stress response

- Automatic threat perception
  - Current stimuli are compared with past experiences of threat in the amygdala
  - If the current stimulus is deemed a threat, the HPA (hypothalamic-pituitary-adrenal) axis is triggered

Fight Flight response symptoms
- When triggered the HPA Axis releases hormones (eg. adrenalin and cortisol) that lead to a series of physical reactions that prepare the body to fight or flight:
  - Increased heart rate
  - Increased lung action
  - Muscles tense up
  - Attention shifts from rational mind to scanning for threat
    - Loss of hearing and peripheral vision
    - Nonessential systems shutdown
      - Digestion slows down or stops
      - Relaxation of bladder

Evolution of the fight flight response
- The fight flight response helped our ancestors to survive when threatened (e.g. If a tiger was about to attack them)
  - Those that didn’t respond in this way were eaten

Consequences of the fight flight response
- Is this helpful?
  - YES if there is an immediate threat to your safety
  - NO if there is no immediate threat and it is being chronically triggered

Consequences of chronic stress:
- Physical: Headaches, high blood pressure, heart disease, body open to infections
- Psychological: Anxiety, depression, anger
- Behavioural: Productivity, turnover, burn-out

Stress and performance
- Amount of Stress - Low - High

Level of Performance - Poor - Excellent
- Low Stress - Boredom
- Optimum Stress
- Excessive Stress - Anxiety

Stress and values
- Goals - Stressor - Stress
  - If appraised as threat that you cannot cope with

Consequences of chronic stress
- Physical (Headaches, high blood pressure, heart disease, body open to infection, Alcoholism..)
- Psychological (Anxiety, depression, anger)
- Behavioural (Productivity, turnover, Procrastination, conflict)

Internal stress response

Evaluation of the high level response
- Immediate Symptoms
  - Physical
  - Emotional
  - Cognitive
  - Behavioural (fight/flight)
Coping (Your responses to stress)

How do you respond to stress?

Coping Effectiveness

- **Adaptive Coping**
  - Helps you to deal with stress
  - Enables you to pursue your goals
  - Example: Requesting feedback on a failed exam

- **Maladaptive Coping**
  - Does not help you to deal with stress
  - Gets in the way of your valued goals
  - Example: Getting drunk all the time after failing an exam

**Are your current coping responses effective?**

- Rate your coping responses as adaptive or maladaptive

**NOTE**
- Some coping responses may be effective in the short term, but not in the long term
- Answering this question may take some reflection as coping behaviours tend to be habitual and automatic

Increasing your resilience

Some people are more resilient than others

- This is because we learn our coping habits through observing others (e.g. parents)
- Not everyone has been exposed to adaptive coping

You can become more resilient by establishing more adaptive coping habits

- This requires daily practise
- Are you willing to do this?

Habits that support resilience

- Self-awareness
  - Stress triggers (Stressors that you get triggered by)
  - Current ways of coping and their effectiveness

- Coping flexibility
  - Learn new adaptive coping skills
  - Choosing strategies that fit the stressor
  - Reduce the use of unhelpful strategies

- Develop and nurture your support network

Resilience

- The term “Resilience” refers to the ability to cope with stress in ways that enable you to
  - Bounce back from the impact of the difficulties, and
  - Persist with valued actions

- Can you think of anyone who is exposed to significant stressors but displays resilience?

Increasing your resilience

- Some people are more resilient than others

- This is because we learn our coping habits through observing others (e.g. parents)
- Not everyone has been exposed to adaptive coping

You can become more resilient by establishing more adaptive coping habits

- This requires daily practise
- Are you willing to do this?

Habits that support resilience

- Self-awareness
  - Stress triggers (Stressors that you get triggered by)
  - Current ways of coping and their effectiveness

- Coping flexibility
  - Learn new adaptive coping skills
  - Choosing strategies that fit the stressor
  - Reduce the use of unhelpful strategies

- Develop and nurture your support network

Resilience

- The term “Resilience” refers to the ability to cope with stress in ways that enable you to
  - Bounce back from the impact of the difficulties, and
  - Persist with valued actions

- Can you think of anyone who is exposed to significant stressors but displays resilience?
Coping with stress: flexibility steps

Recovering from the stress response

Stress

Values

Recover from stress response

Deal with the stressor

Coping Strategies

- Take a 5-minute break
- Don't react straight away
- Engage these strategies:
  - Mindfulness
  - Breathing
  - Muscle Relaxation
  - Exercise
  - Emotional support

Recovering from the stress response

Why do this before addressing the underlying cause?

- Fight or flight is often unhelpful when dealing with modern stressors
- Can you deal with complex problems when the stress response has been triggered?

Mindfulness Benefits

- Flexibility to choose
  - No longer habitually reacting to stressors
  - A broader perspective on what is happening
- Space to discover better ways to respond

- Participating
  - Fully in the present moment
  - How often are we stuck inside our heads, worrying about the future or beating ourselves up about the past?
- "If you're not here, you're not anywhere."

Mindfulness: Noticing

- Sensory
- Attention Regulation
- Orientation/Attitude
- Gently, like a friendly scientist, observe with curiosity, without judgment or attempting to change anything.

"Now, what are we going to do?"

When we are not in the moment, we miss opportunities to discover what works.
Recovering – Breathing

When we are anxious/stressed, we tend to over breathe. This leads to dizziness, confusion, increased heart rate, blurred vision, breathlessness. Therefore it is important to slow breathing down. Deep, slowed breathing:

- Get comfortable
- Stomach breathing
- Breathe in through nose (4 seconds)
- Hold
- Breathe out fully (4 seconds)

Recovering – Muscle Relaxation

Learning to relax your muscles:

- Involves tensing and relaxing a series of different muscle groups
- By alternating between tension and relaxation you will learn to discriminate between these two states and become more aware of tense body areas
- With practice can achieve a sense of muscle relaxation quickly

Recovering – Exercise

When the fight flight response has been activated:

- Our immune system is suppressed
- We are tense
- We are likely to feel overwhelmed
- Physical exercise enhances the ability of the body to respond to stress
- Releases endorphins – mood enhancement
- Improves sleep quality, relaxation and health
- Buffers the effect of stress on anxiety and depression
- What kind of exercise do you do?

Recovering – Emotional Support

You don’t have to be alone:

- What might stop you from reaching out?
- Write down someone you can talk to for:
  - Study: __________________________
  - Personal: _______________________

Dealing with stressors

Start by identifying what you find stressful:

- External situations – e.g. Email overload
- Internal experiences – e.g. Thought: I’m going to fail
- Emotion: Fear
- Memory: Memory of road accident
- Sensation: Heart racing
- A combination of both internal/external

How do you deal with these stressful situations?

You will be asked to keep track of this in a diary.
Our mind is constantly looking for ways to address threats by controlling our external environment. It learns from past experiences, identifies potential threats, analyzes and solves problems, invents things, makes plans, and shares knowledge. Generally, our mind is helpful (it keeps us warm, sheltered, fed, safe, healthy).

But do we have total control over our external environment?
- The weather?
- Other people's actions?
- What questions will be on the exam?

Often, we only have control over our response to a situation.

Our Mind's Coping Habit: Control
Our mind also tries to control our inner world.

What strategies do you use to control:
- Your Thoughts? Emotions? Memories? Sensations?

Common Control Strategies for internal experiences:
- Suppression (pushing experiences away)
- Arguing (with your own thoughts/reality)
- Taking Charge (snap out of it, positive thinking)
- Self bullying (you should know better than this)
- Hiding/escaping (e.g. drop out of course)
- Distraction (focus on something else)
- Zoning out/Numbing (disengaging/sleeping/medication/drugs)

But to what extent can we control our inner world?
- Thoughts
  - Try not thinking about "I'm a failure"
- Emotions
  - Try to make yourself love someone?
- Memories
  - Try to block out the memory of how you got here today
- Sensations
  - Try to numb your leg

Additional Distress Due to Control/Avoidance:
Initial Distress $\rightarrow$ Struggle
- Initial Distress: (Fear of failure), Guilt, Hopelessness
- More intense Fear of Failure
- More likely to fail
- Despair

Rule of Internal Experience:
- If you're not willing to have it, you'll have it more intensely.

Rule of External Experience:
- If you're not willing to have it, you can usually get rid of it.

When control leads to struggle:
- Control strategies may help initially,
  - What they conflict with our values (e.g. health, relationships, ethics)

Different Rules
- Control is not generally a solution for experiences we don't have much control over (e.g., internal experiences)
- Control strategies are particularly unhelpful:
  - When used excessively (e.g., leads to addiction)
  - When they conflict with our values (e.g., smoking vs. health)
  - For experiences we don't have much control over (e.g., internal experiences)

When we have control over our response to a situation.
Acceptance - Letting go of struggle

If we are willing to accept uncomfortable experiences, and not try to get rid of them:
- We can escape additional distress created by attempting to control the uncontrollable

What is something you have not been willing to have lately?

Coping Flexibility

Select coping strategies that match the level of control that you have over a stressor:
- If Full control – Action strategies
- If None (no control) – Acceptance strategies
- If Partial (some control) - Action and Acceptance

Famous words...

"Develop the serenity...
To accept the things I cannot change,
The courage to act where I have control,
And the wisdom to know the difference.
"

How much control do we have?

(full, partial, none)

- What someone else is thinking
- The choices I make
- Others being on time
- How I respond to other people
- My own thoughts
- What other people value and care about
- How I feel
- What I say in a situation
- The choices others make
- The weather
- The direction I want my life to take
- Memories of accidents arising when I pass the location
- How others respond to me
- How I behave with respect to other people
- Physical pain
- How I speak with other people

Acceptance of External Experiences

Open yourself up to the present reality.

Acceptance of things you cannot change:
- Open yourself up to the present reality
- Doesn’t mean resigning yourself to something you like it
- E.g. Parent has died – need to accept the reality

Values

Stress

Recover from stress response
- Mindfulness
- Breathing
- Muscle relaxation
- Exercise
- Emotional support

Deal with the stressor
1. What are the stressors?
   - Write them down
2. Do you have control?
   - Yes
   - No

Acceptance of things you can change:

Acceptance of things you cannot change:

Combining Flexibility

Acceptance - Letting go of struggle
Acceptance - It's not about giving up

An acceptance is an uncontrollable situation

• If you fight it you risk exhaustion
• You need to be willing to work with it
• Eventually things will settle
• The waves back are like your values, they guide you back to shore

But it shouldn’t be this way!

When you have exhausted all potential actions, what is the consequence when you don’t accept?

Acceptance of Internal Experiences

• Being willing to experience difficult emotions, thoughts, memories and sensations
• Not attempting to avoid, suppress, or push away experiences

Negative emotions, memories, sensations and thoughts are like bees without stingers. They seem scary. Do you really have to run from them?

Acceptance coping strategies

• Mindfulness
  - Involves noticing these experiences without trying to avoid or control them
• Making sense of loss and setbacks

More details about these strategies are available in your homework materials

Living with unhelpful thoughts

Think of an unhelpful thought about yourself or the world (e.g. “I’m a loser” OR “I’m going to fail”)

• Spend 10 seconds saying the thought to yourself
• Believing it as much as you can
• Notice how the thought occurs to you
• The influence it has on your behaviour
• How the thought affects you

Assignment

But it shouldn’t be this way

Assignment - It’s not about giving up
Fusion – when thoughts hook you

- Appears to be the truth (e.g. “I am a failure”)
- Like a threat that’s happening right here and now (even if its about the past or the future)
- To be very important, requiring all your attention

- Influences your behaviour
- Unconsciously/automatically
- You won’t let go of it even if it worsens your life
- It becomes like a command you have to obey or a rule you have to follow

Defusing unhelpful thoughts

- Add the following words in front of the thought: “I am having the thought that”
- E.g. I am having the thought that I am a failure

Defusion – Seeing thoughts as thoughts

- When we defuse a thought
- We recognise that the thought:
  - May or may not be true
  - May or may not be important
  - Is definitely not a threat to you
  - Is not something happening in the physical world
  - Is merely words or pictures inside your head

- The thought has less influence over your behaviour
- You have a choice as to how much attention you pay it
- You can choose actions aligned to your values instead

When you can act despite your thoughts

Defusion

- Values
- Stress
- Recover from stress response
  - Mindfulness
  - Breathing
  - Muscle relaxation
  - Exercise
  - Emotional support

- Deal with the stressors
  1. What are the stressors? Write them down
  2. Do you have control? Yes
     No
     Action

Coping strategies
- Strategies to change/control the stressor
  - Getting advice
  - Problem solving
  - Planning
  - Rebuilding
  - Interpersonal strategies
    - De-escalation
    - Perspective Taking
    - Conversation Planning
    - Assertiveness
    - Negotiation

More details about these strategies are available in your homework materials
Your Values

Your Goals

Recover from the stress response

Mindfulness
Breathing
Muscle relaxation
Exercise
Emotional support

Stressor

Resilience Model

YES

Take Action

Getting advice
Problem solving
Planning
Rebuilding

Interpersonal

Skills

NO

Acceptance
Mindfulness
Thought Defusion
Making Sense of Loss
Deal with the stressors

Internal and External

Notice when you get stressed
Do you have control?

De-escalation
Perspective Taking
Conversation Planning
Assertiveness
Negotiation

Supported by

Self Awareness
Healthy Relationships

C

How are you going to develop more Adaptive Coping Habits?

Practising flexible coping using the Resilience Model

• Daily stress logging and coping strategy selection
• Reflect on your data and develop a Resilience Profile

Your Strengths, Vulnerabilities and Triggers

Coping strategies that are helpful and unhelpful

• What new habits would be helpful to develop?

Extra Incentive to Practise

Win an iPad
• To be eligible you need to submit your practice diaries at lab 2 and lab 3
• Your data will remain anonymous

Two Practice Methods

Group Allocations and Discussions
• Please do not talk to other students about your method

Resilience Training Coaching
• Coaching to apply these skills in your life
  • Clarification and Motivation
  • Book a 20 min coaching chat
    • Wed (1-6pm) or Fri (1-5pm)
    • Either by phone or in person
    • http://meetme.so/ChangeBud
  • Book a 20 min coaching chat
    • Email questions
      • chrisjhoran@gmail.com

Why bother practising stress management?

Pros
• Explore reasons for and against change

Cons
• Explore reasons for and against change

Practising flexible coping using the Resilience Model
Emotional Support

If you experience distress during the course of your studies, you can contact:

- Lifeline on 131114
- ANU Counselling Service on 6125 2442

Next Steps

- Questionnaire two (Now)
  - tiny.cc/bgty0w
  - Please complete quietly in computer lab
  - You may leave when you have finished it

Daily Practise!!!!!

- Submit diaries to be eligible for iPad prize
- Questionnaire three
  - Early September

Defusion exercises

- Thoughts on the paper are everywhere

Mind train

- Happy Birthday
- I am noticing that I am having the thought that
- We see it down
- Thoughts on the paper are everywhere

Thoughts on the Paper exercise

- Write it down
  - I am noticing that I am having the thought that

Happy Birthday

Mind train

- Your memory
- You have trouble on how to interpret
- Find complex events in complex life
- My conclusion (Now)
Resilience Training Workbook

**Introduction to Stress Management**

Stress is an inevitable part of life. It can be triggered by **external situations** (e.g. bullying, poor grades, financial pressure) or **internal experiences** including Thoughts (e.g. I’m going to fail), Memories (e.g. Memory of being fired), Emotions (e.g. Fear) and Sensations (e.g. Heart racing).

While the stress response (fight or flight) can help us to survive immediate threats to our safety, in the absence of effective coping strategies, intense stress over a prolonged period of time can lead to a range of consequences including: gastrointestinal, cardiovascular and musculoskeletal problems; immune deficiencies; productivity, innovation and learning difficulties; relationship strains and poorer mental health outcomes.

When stress arises we have a choice, we can avoid the stressors and abandon our values, OR we can learn to manage stress so we can continue pursuing our values and goals. Resilience training is designed to increase your ability to cope with stress in ways that enable you to bounce back from difficulties and persist with your goals.

The way we typically cope with stress is habitual, developed over a lifetime, often based on the coping strategies used by our parents. While some people will have learnt adaptive coping habits in their childhood, others will need to establish these habits as adults.

**Using this workbook to establish adaptive coping habits**

In this workbook, you are asked to complete daily stress logging and reflection to build your awareness of what makes you stressed, and how you typically cope with stress. You are also encouraged to develop a more flexible way of coping, by selecting coping strategies that fit the stressors that you are currently experiencing (based on the resilience model introduced in the workshop and shown on the following page). Instructions for each coping strategy are also included in the workbook.

As you build up a history of stress logs, you can reflect on your data and identify your strengths, vulnerabilities and triggers, in addition to coping strategies that are helpful, or not helpful for you when you get stressed. You can then use this information to identify proactive strategies that you can use to further minimise the impact of stress.

**To maintain the integrity of the ANU Student resilience training trial, please do not share the contents of this workbook with others.**
**Win an iPad - Submit Your Data**

To be eligible for the IPAD prize you need to submit your anonymous stress logs. Please bring your logs to Lab 2 and Lab 3. You will earn one entry if you submit data on only one occasion, and two entries if you submit on both occasions.

Ensure your UNIQUE ID is written at the top of each week's log.

Your unique ID is constructed based on the following

- Your Birth Year (e.g. 1986)
- Your number of older siblings (e.g. 8)
- The first three letters of the month in which you were born (e.g. APR)
- The first letter of the first primary school that you attended (e.g. S)
- The first letter of your mother's original family name (maiden name) (e.g. L)

E.g. **1986 8 APR S L**  (If you don’t know any of the answers, use X)

**Selecting coping strategies**

Use the following model as a guide to selecting coping strategies based on the stressors that you experience. Instructions for each strategy are shown on the following pages. If you get stuck, see the three motivational strategies.
Mindfulness

When stressed, it is easy to get caught up in thoughts and feelings about the future or the past, responding automatically to smaller and smaller events as though they are an imminent threat.

Mindfulness is the ability to observe and accept these experiences as they come and go without attempting to avoid or control them. Practising mindfulness increases our awareness and responsiveness to the here and now. It enables us to cope more effectively with challenges and stress, while staying focused on our values and goals.

Instructions

Find a quiet place, where you won’t be interrupted, and sit yourself in a comfortable chair. Now direct your attention to your breathing. As you take a breath in, follow the air as it comes in through your nostrils and goes down to the bottom of your lungs. Then follow it as it goes back out again. Follow the air, as if you’re riding the waves of your breathing. Notice the air moving in and out of your nostrils, how it’s slightly warmer as it comes out, and cooler as it goes in.

Notice the gentle rise and fall of your rib cage. Notice the gentle rise & fall of your belly. Fix your attention on your belly: on the breath moving in and out of the nostrils, on the rising & falling of the belly. Keep your attention on this spot, noticing the movement - in and out – of the breath.

Whatever feelings, urges or sensations arise, whether pleasant or unpleasant, gently acknowledge their presence, and let them be. Allow them to come & go as they please, and keep your attention on the breath.

Whatever thoughts, images, or memories arise, whether comfortable or uncomfortable, simply acknowledge them and allow them to be. Let them come & go as they please, and keep your attention on the breath.

From time to time, your attention will become distracted by thoughts or feelings. Each time this happens, notice what distracted you, then bring your attention back to the breath. No matter how often your attention “wanders off” - your aim is simply to note what distracted you, and bring your attention back to the breath.

There is no need to be frustrated or impatient or disappointed when your thoughts carry you off. It is the same for everyone. Our minds naturally distract us from what we are
doing. So each time you realise your attention has wandered, gently acknowledge it, notice what distracted you, and return your attention to the breath.

If frustration, boredom, anxiety, impatience or other feelings arise, simply acknowledge them, and maintain your focus on the breath. Noticing how the air feels as it travels in through your nostrils and out again.

It’s ok and natural for thoughts to arise, and for your attention to follow them. No matter how many times this happens, just keep bringing your attention back to your breathing.

Well done, you have now completed a session of mindfulness. When you are ready, bring your attention back to the room and notice how your body feels.

**Abdominal Breathing**

When we experience stress, our breathing often becomes faster and shallower. While this is a normal part of the fight flight response to stress, breathing in this way for an extended period of time, can leave you feeling exhausted, on edge, and more likely to react to minor stressors.

A simple and effective way to calm yourself down is to change the way you breathe, by breathing more slowly and by breathing deeply, from the abdomen. We call this abdominal breathing.

**Instructions**

Place one hand on your stomach beneath your rib cage, and one on the top of your chest. Continue to breathe normally. Inhale slowly through the nose, sending the air as low and deep into your lungs as possible. When you have taken a full breath, slowly exhale the air, fully... until you have no more oxygen left in your lungs.

You are breathing from the abdomen if the hand on your stomach rises and falls more that the hand on your chest. If you are not feeling your stomach move, try again. Send the air as low and deep into your lungs as possible. As if you are blowing up your belly like a balloon. And when it has inflated begin to exhale... allowing the balloon to fully deflate.... Letting all the air out.

Don’t be surprised if this feels strange at first, with practice it will start to feel more normal. Now do 10 abdominal breaths times on a cycle of 4 sec in and 4 sec out.
Muscle Relaxation

When we experience stress, our muscles often tense up. While this is a normal part of the fight flight response to stress, if we maintain high levels of muscle tension for an extended period of time, we may start to experience muscle fatigue and pain.

This exercise is designed to help you to learn to relax the different muscle groups in your body. As you do this, you will begin to notice the difference between feelings of tension and the sense of relaxation which occurs when you let go of tension.

Instructions

Feelings of heaviness, warmth or tingling are normal whilst practicing this exercise, and a sign that your body is relaxing. However, different kinds of relaxation exercises suit different people. If you experience any pain or discomfort in any of the targeted muscle groups, feel free to omit that step or use an alternate relaxation technique that may be better suited to you, such as abdominal breathing.

Make yourself comfortable in your chair. Take a few deep breaths before we begin.

1. Now draw your attention to your **hands**. Make a tight fist with both of your hands. Squeezing them tightly, noticing the tension and strain in your hands and fingers, keep holding it (up to 7 seconds). And relax. Allowing your hands to fall open and the tension flow away. Noticing any feelings of warmth or heaviness as your muscles relax. (for about 7-10 seconds).

2. And now, drawing your attention to your **upper arms**. Push your elbows down against the arms of the chair. Keep pushing...noticing the strain and tension in your shoulders and along your upper arms.... Keep holding it...(up to 7 seconds). And relax. Allowing your arms to drop, Letting all of the tension drain away, as warmth and relaxation flow along your arms (for about 7-10 seconds).

3. Now, draw your attention to your **face**. Scrunch up your face – as if a fly has landed on your nose - Squinting your eyes tightly, wrinkling up your nose and clenching your jaw together tightly. Hold that tension, noticing the strain and tension across your face, keep holding it (up to 7 seconds). And relax, allowing your face to loosen and drop, noticing as all of the tension drains away from your eyes, your nose and your mouth, with each breath (for 7-10 seconds).

4. Now, draw your attention to your **neck**. Pull your chin down towards your chest. Keeping it tucked in towards your body. Hold it, notice the tension along the back of your neck (up to 7 seconds). And relax, letting go, allowing the strain and tension to...
flow away, noticing any sensations of warmth or tingling as your neck begins to relax (for about 7-10 seconds).

5. Now, take your attention to your chest, shoulders and back. Take a deep breath, at the same time pull your shoulders back and try to make your shoulder blades touch. Be careful not to strain your muscles. Hold it, noticing the strain and tension across your back and shoulders (up to 7 seconds). And relax, letting your shoulders drop and allowing the tension to drain away with each breath (about 7-10 seconds).

6. Now, focus on your stomach. Tense your stomach muscles hard by pulling them in tightly. Hold the muscles in...feeling the tension and strain across your abdominals, keep holding it (up to 7 seconds). And relax. Let you stomach muscles release. Noticing any sensations of warmth or tingling as you let go of the tension in your stomach (for about 7-10 seconds).

7. Now focus your attention on your legs. Stretch your legs out straight and raise them slightly off the floor. Flex your thighs and draw your toes back up towards your head. Hold it, noticing the strain in your thighs and along your calves (up to 7 seconds). And relax. Allow your legs to rest on the ground, noticing as the tension is replaced by feelings of warmth and relaxation (for about 7-10 seconds).

8. And finally, focus your attention on your ankles and feet. Curl your toes under and at the same time turn your feet inwards. Hold it, feeling the strain across your ankles and feet (up to 7 seconds). And relax, letting your feet to rest on the ground and allowing any tension to flow away, as you become more relaxed (for about 7-10 seconds).

9. Well done! You've made it through a whole relaxation session. Spend a few moments now taking some nice, deep breaths. Are you less tense now than you were before you started?

Physical Exercise

Physical exercise improves our physical health and sleep quality, and releases endorphins, which can lift our mood and reduce stress-related anxiety and depression symptoms.

In addition, by shifting our attention from day to day frustrations towards our physical environment, physical exercise can promote a state of mindfulness, in which we are more aware and responsive to the here and now.

Instructions:
As little as 10 minutes of aerobic exercise can have a positive effect on your mood. For long-term benefits, try to exercise 3 times a week for 30 minutes per session at a moderate intensity.
If you don’t feel motivated to exercise, consider exercising with a friend, and start with short sessions, gradually increase the duration and intensity over time.

Identify what exercise you are going to do today in your stress log.

**Emotional Support**

![Image of a woman consoling another woman](image)

*Brief Description*

When emotionally distressed and overwhelmed, we may feel like withdrawing from social contact. Unfortunately this takes us away from people who can provide emotional support.

Instead of withdrawing, let your friends and family know that you need support. Don’t assume that other people can’t cope with your worries or are not interested in your wellbeing. As far as possible, choose to talk to people who are positive and care about you.

If you cannot reach someone to talk to, consider calling Lifeline (131114) or seeking **professional support**.

On your stress log identify from whom you can seek emotional support.
**Thought Defusion**

When we are fused with negative thoughts about ourselves and the world, the thoughts can act like a cage that stop us from pursuing our goals.

In contrast, when you defuse a thought, you recognise that the thought:

- May or may not be true or important
- Is not a physical threat
- Is merely words inside your head
- Is not a command you have to obey

When you defuse a thought it has less influence over your behaviour. You can choose how much attention you pay it and you can choose to take actions aligned to your values instead.

**Instructions:**

Identify your negative thought on your stress log
(For example, ‘I'm a loser’ or ‘I'm going to fail’)

- Now fuse with this thought for 10 seconds by giving it your full attention and believing it as much as you can. Notice the influence the thought has over your behavior.
- Now defuse the thought by adding the words ‘I'm having the thought that’ in front of it. For example, ‘I'm having the thought that I'm going to fail’.
- Notice how the thought occurs to you now. Does it feel more distant? Does it have less influence over your behaviour?
- As an alternative defusion technique, imagine yourself as the captain of the ship with your thoughts being demons trying to stop you from pursuing your goals.
Dealing with setbacks

We all experience setbacks from time to time, no matter how hard we try to achieve our goals. Setbacks can be incredibly frustrating. It is easy to overestimate the lasting impact of a setback and to become hopeless.

What matters is how you respond to setbacks. Do you get angry and waste time arguing that the setback shouldn't have happened? Do you give up and stop pursuing your dreams? Or do you find your way back to the track and get going again? By taking steps in the direction of your goals and values, the impact of the setbacks will be temporary and the negative emotions will soon pass.

Instructions:

Describe the setback on your stress log. *Take a step back from the situation and answer to the following questions:*

- What is the likely impact of the setback and what actions could you take to minimise this impact?
- What do you need to accept about the situation and what are the consequences of not accepting?
- What is your responsibility for the setback and what could you do differently next time to prevent similar setbacks?
- Who can advise you and provide emotional support? Don't be afraid or ashamed to ask. People often are more than willing to give you support and advice, maybe even after being in a similar situation
- Knowing that mistakes are part of the learning process what can you do to demonstrate compassion and kindness towards yourself? You don't have to be perfect; after all, nobody else is.
Professional Support

If you notice that you are distressed for an extended period and not able to do the things you normally do, it may be helpful to obtain professional support.

Instructions:

The ANU offers a free and confidential counselling service to all current ANU students. The Centre’s opening hours are from 9:00am to 4:45pm weekdays. Call 6125 2442 to make an appointment. Alternatively, during business hours visit your GP to request a referral to a Psychiatrist or Psychologist.

If you would like to talk to someone out of business hours, Lifeline offers 24-hour crisis counselling on 131114. For immediate intervention in which life may be in danger, call the ACT Crisis Assessment and Treatment Team on 1800 629 354, the Police on 000 or go to your local hospital emergency department.

Identify the support that you will seek on your stress log
Sleep Hygiene

Establishing healthy sleeping habits can reduce daytime tiredness, support your physical health and prevent the development of sleep disorders.

Instructions:

Tips for *when you are trying to sleep*
- If something is on your mind, write it down and address it in the morning
- Bring your attention to your breathing (*mindfulness*)
- If you can’t get to sleep after 20 minutes, get up and do something, and return to bed when you feel sleepy.
- Avoid doing anything that is too stimulating, and avoid bright light.

Tips for *preparing for bed*
- Establish a regular time to go to bed and to wake up
- Develop rituals that remind your body that it is time to sleep (e.g. stretches, breathing exercises)
- Consider having a hot bath 1-2 hours before bedtime
- Ensure your bedroom is quiet and comfortable for sleeping.

Things you can do *during the day*
- Do regular exercise, at least 4 hours before bedtime.
- Avoid taking extended naps to make sure you are tired at bedtime.
- Avoid doing work in bed, so your body associates bed with sleep.
- Avoid alcohol and stimulants like caffeine & nicotine for 4-6 hours before going to bed.

Identify changes you are going to make to your sleeping habits on your stress log
Dealing with Trauma

Traumatic events are distressing events which can have a negative impact on our sense of security and vulnerability. Following a traumatic event people may struggle with upsetting emotions, frightening memories, or a sense of constant danger. Or they may feel numb, disconnected, and unable to trust other people.

Everyone’s reaction is different and most people who experience a potentially traumatic event will recover well and not experience any long-term problems. Some people however will develop more serious problems, which can emerge directly after the traumatic event, or much later.

Instructions:

There are many ways to move on and deal with trauma. You need to work out what works for you. Some people resolve trauma not by revisiting the past, but by connecting to a future with new possibilities and meaning. Establishing or re-establishing normal routines and healthy behaviours can also help.

If you find yourself becoming distressed by traumatic memories, practising mindfulness may help you to notice the memories as they arise, enabling you to redirect your attention back to the present moment.

Consider seeking professional assistance if symptoms resulting from trauma last for more than a couple of weeks and are too distressing (If you answer yes to 4 or more of the questions below).

1. Do you avoid being reminded of the experience by staying away from certain places, people or activities?
2. Have you lost interest in activities that were once important or enjoyable?
3. Have you begun to feel more distant or isolated from other people?
4. Do you find it hard to feel love or affection for other people?
5. Have you begun to feel that there is no point in planning for the future?
6. Have you had more trouble than usual falling or staying asleep?
7. Do you become jumpy or easily startled by ordinary noise or movements?
Making Sense of Loss

Losing someone or something you love or care deeply about can be very painful. Any loss can bring about grief including death of a loved one, a relationship breakdown, loss of health and independence, job loss, or moving home. You may experience all kinds of difficult emotions and it may feel like the pain and sadness you're experiencing will never go away. These are normal reactions to a significant loss.

While there is no right or wrong way to grieve, there are healthy ways to cope with the pain that, in time, can renew you and permit you to move on.

Instructions:

Describe the loss on your stress log

Tips to cope with loss

- Most importantly, do not grieve alone. Seek out the company and help of supportive friends and family often.
- Give yourself enough time to adjust to the loss. There are no short cuts when the loss is significant.
- Take care of yourself each day, knowing that loss is difficult for everyone (Self Compassion).
- Try to get enough sleep, eat right, and exercise.
- Try not to use alcohol or drugs to numb the pain of grief or lift your mood.
- Instead of suppressing your feelings, find ways to acknowledge your pain and accept what has happened.
- Think about why the loss was significant to you and what this reveals about your values, the things that matter to you.
- Knowing how the loss relates to your values, identify steps you can take rebuild your life and find new purpose and meaning.
- If you have tried the strategies above and have given yourself time, but you are still finding it difficult to make sense of the loss and start to rebuild, consider seeking professional support.
**Acceptance**

We all have difficult experiences from time to time. Life serves up painful events, and our painful reactions to them are natural and entirely acceptable. The problem arises when we are unwilling to accept these reactions and we try to avoid, control, or get rid of them. We enter a struggle that creates *Additional distress* and a whole new set of painful feelings, emotions, and thoughts appear.

The problem with trying to control **internal experiences** is illustrated by procrastination, which is characterised by avoiding tasks that bring up uncomfortable feelings like fear and anxiety, especially related to failure. Unfortunately, when we avoid tasks the likelihood and fear of failure increases, and we now add new emotions to the mix such as guilt and hopelessness.

And when we are not willing to accept **difficult situations** that are out of our control, we may invest a lot of time and energy in a frustrating fight against reality, and we may neglect to adapt and move on.

When we are able to accept difficult experiences (situations, thoughts, memories, sensations and emotions) without needing to get rid of them, we avoid additional distress and we gain energy that we can use to carry on with our goals.

**Content:**

When you find yourself getting into a struggle write down answers to the following questions:

- What experiences have you not been willing to accept?
- What have you been doing to try to avoid or control these experiences?
- What are the impact of not accepting these experiences on your goals and values?
- What strategies could you use to help you to accept these experiences without trying to get rid of them (see **mindfulness**, **thought defusion**, **making sense of loss**, **dealing with trauma**, **self compassion**, **emotional support**)

Identify what you are willing to accept on your stress log.
Getting Advice on a difficult situation

Sometimes we don't have sufficient information to decide how to deal with a problem. This is especially the case if the problem is in a new area of expertise. In these circumstances, it can be helpful to reach out to someone who might be able to provide additional information and guidance.

Instructions:

Describe the problem on your stress log

Before seeking advice write down your current understanding of the problem:

- What are the likely consequences of the problem for yourself and others?
- What appears to be causing the problem and what can you do about it?
- Is the problem worth addressing? (Are the Benefits > Costs)
- What information are you missing?

When you have done your own research, identify who you trust that might be able to provide additional information and guidance, and how you might approach them (See conversation planning)

Identify who can provide you with advice on your stress log.
Problem Solving

When things are not working out, it can have a negative impact on how we feel and it can make us feel depressed, downtrodden or frustrated. Avoiding problems only makes things worse. While some problems are easily sorted out, others aren’t so straightforward, so learning problem solving steps can help increase your chances of reaching a successful outcome.

Instructions:

Before getting into problem solving, identify what you have control over and what you don’t. Problem solving is good for situations where you have some control. Where you have no control, consider Acceptance.

Describe the problem on your stress log

Get a pen and paper to take notes as you go through the following steps:

- Brainstorm as many ways of solving the problem as possible.
- Evaluate each solution by mapping out the pros and cons with reference to your values.
- Identify the best solution to implement.
- Plan how you are going to implement the solution. (See Goal setting and Getting things done)
- Start taking action, drawing on other skills as appropriate
- Monitor your progress and adjust your approach as necessary

If you find yourself getting stuck at any step, consider getting advice.
Planning – Goal Setting

Goals provide direction, meaning and purpose. You can set goals in all areas of your life including your relationships, your studies, career, physical health and hobbies. Goals can also help you to overcome challenges and change things that have been upsetting you. People who set goals stay focused and motivated and are more likely to achieve results.

Instructions:

To increase your chances of success use the guidelines below to clearly define your goals. You can remember these guidelines using the S.M.A.R.T acronym.

- **Specific**
  - What are you planning to do?
  - What is the purpose of accomplishing the goal?
  - Who else needs to be involved?
- **Measurable**
  - How will you know if you have achieved the goal?
- **Attainable**
  - If the goal is too big or overwhelming break it into smaller tasks.
  - Do you have the ability and resources to achieve the goal?
  - Does it fit with other commitments?
- **Relevant**
  - Is the goal important to you; is it consistent with your values? (Your values can help guide you towards setting goals that will be personally meaningful and motivating).
- **Timely**
  - When will each step will be completed

Describe your S.M.A.R.T goal on your stress log

Once you have a clearly defined goal, your next step is to plan how you will get things done.
Planning – Getting things done

Both planning and self-discipline is critical if you are to achieve your goals. This is especially the case when no one else is watching your progress and when you seem to have a lot of 'free' time.

Instructions:

Use the following guidelines to make the most of your time:

- **Allocate time** to complete each task
  - At the time of day when you work best
  - Be realistic about how long each task will take
  - If you need help arrange this ahead of time
- **Prioritise** tasks
  - Knowing that you can’t do everything classify tasks by Urgency and Importance
  - Prioritise tasks based on importance
- **Plan for distractions and setbacks**
  - Try to finish with some time to spare
  - Learn to say no (see assertiveness)
- **Get started**
  - Take action while being mindful and accepting of fear that may arise, especially when working on important and unfamiliar tasks
  - Start with a small task
  - Reward yourself for progress

Describe one thing you can do now to get started on your stress log
Rebuilding after a personal loss

Losing someone or something you love or care deeply about can be very painful. At the same time as making sense of the loss, you may need to make adjustments for your new circumstances in order to cope with the ongoing demands of life and to develop a new sense of hope and purpose. Your values, the things that matter to you, can help guide you through this process.

Instructions:

Get a pen and paper and go through the following steps:

- Write down what you have lost and what has changed
- Reflect on how this might have impacted your values and your goals.
- Knowing your values and how they have been affected, identify any new goals that might help you to rebuild, to adjust to the loss and to restore a sense of hope and purpose.

Identify values that are related to the loss and new goals you can work on your stress log
De-escalation

Nobody intentionally sets out to make things worse. Yet we are constantly doing and saying things we later regret. People often do things that anger or upset us. This is the nature of life.

It is important to remember that you do not have to act on your emotions. You may experience anger, but it will pass. Anger is like a passenger on the bus and you are the bus driver. Anger might feel like it is yelling at you to turn left! But you don’t have to turn left, you don’t have to obey anger.

Instructions:

When you are in a distressing social situation, use the S.T.O.P. guidelines below to avoid doing something you will later regret.

- **Stop** yourself from reacting and step back from the situation
- **Take a breath** (abdominal breathing)
- **Observe** the situation and your thoughts, emotions and sensations (**mindfulness**)
- **Plan** how you are going to respond
**Perspective Taking**

Sometimes, when someone does something annoying or frustrating, it can help to imagine what it might be like to be that person before reacting.

![Image of a person](image)

**Instructions:**

Get a pen and paper and write down answers for the following questions:

- **Thinking about the other person**
  - What thoughts arise and what are your beliefs about the person?
  - What feelings and sensations arise?

- **Imagining yourself as the person (Switch places)**
  - List 5 feelings that you might be having
  - List reasons why you may be feeling this way – as many as you can.
  - What would make you change your behaviour?

- **Now that you have imagined yourself as that person**
  - Do you feel differently towards the other person?
  - Have you been making assumptions about them that might be wrong?

Identify how you would behave differently towards the other person on your stress log.
**Planning Conversations**

When you need to talk to someone and the situation is tense it might help to think about what you want to achieve from the interaction before approaching the person.

**Instructions:**

Get a pen and paper and write down answers for the following questions:

- **YOUR NEEDS:**
  - What is your goal in the conversation?
  - How does your goal relate to your values?
  - Do you need to balance conflicting values?
    (e.g. getting what you want v maintaining close relationships)

- **OTHER PERSON’s NEEDS:**
  - What might be their goals and values? (See Perspective Taking)

Having considered both your needs and the other person’s needs, on your stress log identify: What are you going to say? When will you say it? How will you say it? (See De-escalation)
**Assertiveness**

Assertiveness is a way of interacting with others that is characterised by:
- Valuing both your own needs, and the needs of others
- A willingness to both express your own needs and listen and consider the needs of others
- Actively choosing how you respond to others (agreeing or not agreeing)

Being Assertive is **NOT** Aggressiveness **OR** being Passive

![Diagram showing overlap of Assertive Needs and Others' Needs]

**Instructions:**

Get a pen and paper and write down answers for the following questions:

- **Background** (Why are you making the request)
  - “When you do ____ , I feel ____ because ____ ”
- **Your Request**
  - “I would appreciate if you/I could do ____ instead, do you agree?”
- **Consequences**
  - “If you agree, the impact would be ___ for me and ___ for you”
- **How are you going to deliver the request to the other party?**
  - See conversation planning and perspective taking.
  - Consider role playing with someone that you trust before meeting
  - Decide if you are willing to negotiate? (See negotiation)
  - Make sure you invite the other party to respond
  - Be thankful to them for their time and cooperation
  - Deliver on your promises

Identify how you are going to be more assertive on your stress log.

Review the De-escalation skill before you have the conversation
**Negotiation**

Negotiation is an essential skill for achieving goals involving multiple parties and for resolving conflict as it arises. It is a process in which the parties discuss their differences with a view to coming to an agreement.

While each party strives to achieve the best possible outcome for itself, the principles of fairness, seeking mutual benefit and maintaining a relationship are the keys to a successful negotiation. When a foundation of trust is established between the parties in a negotiation, information can be shared openly, and the parties can work together to identify and implement win-win agreements.

**Instructions:**

The following guidelines may be helpful if you enter into a negotiation:

- **Understand your own position**
  - Your interests and values
  - Your alternatives – if you don’t reach an agreement

- **Understand the other party’s position**
  - Its interests and values
  - Its alternatives - if you don’t reach an agreement
  
  *As the other party may not be willing to share its position, use active listening and take note of nonverbal messages*

- **Understand standards and policies that apply to the negotiation**

- **Brainstorm as many options as possible**

- **Evaluate each option against**
  - Interests (yours and theirs),
  - Standards and policies,
  - Alternatives (yours and theirs)

- **Make offers and counter offers**
  - Acknowledge the position of other party
  - Trade off what is in their interest for what is in your interest
  - Never accept an agreement worse than your best alternative

Identify the initial offer you are going to make on your stress log.
**Self Compassion**

When we are working on challenges that take us out of our comfort zone, it is easy for setbacks to expose our personal failings, to trigger thoughts of inadequacy and self-criticism, and feelings of guilt, shame and hopelessness.

By extending compassion to ourselves we can re-gain the energy we need to persist with our goals. Just like when we extend compassion to others, the starting point is to notice when we are suffering, before responding with kindness. All humans struggle at times, no human is perfect. Instead of judging yourself, how can you care for yourself?

**Instructions:**

The following steps may be helpful if you are struggling with personal imperfections.

Write down your self-critical thought on your stress log

- Notice the pain associated with the thought and your desire to push it away.
- Ask yourself how you would respond if it was your friend who was having these thoughts?
- Knowing that no one is perfect, are you willing to accept your own imperfections?
- Remember that you are not the only one that struggles with imperfection

On your stress log identify how you can be kind to yourself today.
**Motivation – Ability to Change**

*Instructions:*

If you would like coaching to improve your ability to develop more effective coping habits, please contact your Resilience Trainer. You can either email your questions or book a 20 min phone or face to face coaching appointment.

Email: chrisjhoran@gmail.com
Coaching Bookings: http://meetme.so/ChangeBud

Take a note of your coaching appointment on your stress log

**Motivation – Readiness to Change**

Sometimes, you might want to change your habits, but the timing is not right. If this is the case for you, consider when would be a better time to start introducing stress management.

*Instructions:*

If now is not the right time to working on changing your coping habits, identify when is a better time on your stress log. Consider setting a reminder in your calendar to remember your commitment. In the meantime identify what you could do to get through stressful problems that may arise.
Motivation – Importance of Changing

It is not uncommon to be ambivalent about implementing changes such as practising new coping habits. This is because there are many reasons not to change and because everyone has different needs. While some people have already established a range of adaptive and flexible coping habits, for others these skills will be new.

![Motivation](image)

Instructions:

Rather than feeling guilty about not making a change, take some time out to consider the impact of making a change in your life.

Get a pen and paper and write down answers to the following questions

- What are the benefits (pros) and disadvantages (cons) of not doing anything
- What are the pros and cons of practising new coping habits (Consider the impact of chronic stress as discussed in the workshop)
- How do the pros and cons of the status quo compare to the pros and cons of practising new coping habits?

If you decide that the pros/cons of not doing anything are greater than the pros/cons of changing your habits, then you can make an informed decision to not practise the resilience training skills.

If you would like to explore your own reasons to change or not to change with your resilience trainer, you may book a 20 min phone or face to face coaching appointment at [http://meetme.so/ChangeBud](http://meetme.so/ChangeBud)

Identify what you have decided to do on your stress log.
*Win an iPad - Submit Your Data*

To be eligible for the IPAD prize you need to submit your anonymous stress logs. Please bring your logs to Lab 2 and Lab 3. You will earn one entry if you submit data on only one occasion, and two entries if you submit on both occasions.

Ensure your UNIQUE ID is written at the top of each week's log.

Your unique ID is constructed based on the following:

- Your Birth Year (e.g. 1986)
- Your number of older siblings (e.g. 8)
- The first three letters of the month in which you were born (e.g. APR)
- The first letter of the first primary school that you attended (e.g. S)
- The first letter of your mother's original family name (maiden name) (e.g. L)

E.g. 1986 8 APR S L (If you don't know any of the answers, use X)
**WEEK 1**  
Log your stress daily and refer to the resilience model to select coping strategies. If you forget to log a day, leave it blank, **DO NOT** log it later.

### EXAMPLE

<table>
<thead>
<tr>
<th>DATE: Tues 30/7/2013</th>
<th>Average stress for today: 8/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>External stressors</td>
<td>Control</td>
</tr>
<tr>
<td>(situations, events)</td>
<td>(None, Some, Total)</td>
</tr>
<tr>
<td>Received poor result on test</td>
<td>Some</td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

- Emotional Support (friend) - 6/10
- Physical Exercise (20 min run) - 8/10
- Getting advice (arranged meeting with lecturer) - 7/10

### DAY 1

<table>
<thead>
<tr>
<th>DATE:</th>
<th>Average stress for today: ____/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>External stressors</td>
<td>Control</td>
</tr>
<tr>
<td>(situations, events)</td>
<td>(None, Some, Total)</td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

### DAY 2

<table>
<thead>
<tr>
<th>DATE:</th>
<th>Average stress for today: ____/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>External stressors</td>
<td>Control</td>
</tr>
<tr>
<td>(situations, events)</td>
<td>(None, Some, Total)</td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

### DAY 3

<table>
<thead>
<tr>
<th>DATE:</th>
<th>Average stress for today: ____/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>External stressors</td>
<td>Control</td>
</tr>
<tr>
<td>(situations, events)</td>
<td>(None, Some, Total)</td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)
Log your stress daily and refer to the resilience model to select coping strategies. If you forget to log a day, leave it blank, **DO NOT** log it later.

<table>
<thead>
<tr>
<th>DAY 4</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>__/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td>Control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td>(None, Some, Total)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies that you selected from the model and helpfulness ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAY 5</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>__/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td>Control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td>(None, Some, Total)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies that you selected from the model and helpfulness ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAY 6</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>__/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td>Control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td>(None, Some, Total)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies that you selected from the model and helpfulness ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAY 7</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>__/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td>Control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td>(None, Some, Total)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies that you selected from the model and helpfulness ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>
**WEEK 2** Log your stress daily and refer to the resilience model to select coping strategies. If you forget to log a day, leave it blank, **DO NOT** log it later.

**EXAMPLE**

<table>
<thead>
<tr>
<th>Date: Tues 30/7/2013</th>
<th>Average stress for today: 8/10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External stressors (situations, events)</strong></td>
<td><strong>Control (None, Some, Total)</strong></td>
</tr>
<tr>
<td>Received poor result on test</td>
<td>Some</td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

- Emotional Support (friend) - 6/10
- Physical Exercise (20 min run) - 8/10
- Getting advice (arranged meeting with lecturer) - 7/10

**DAY 1**

<table>
<thead>
<tr>
<th>Date:</th>
<th>Average stress for today</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External stressors (situations, events)</strong></td>
<td><strong>Control (None, Some, Total)</strong></td>
<td><strong>Internal stressors (thoughts, memories, emotions, sensations)</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

**DAY 2**

<table>
<thead>
<tr>
<th>Date:</th>
<th>Average stress for today</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External stressors (situations, events)</strong></td>
<td><strong>Control (None, Some, Total)</strong></td>
<td><strong>Internal stressors (thoughts, memories, emotions, sensations)</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

**DAY 3**

<table>
<thead>
<tr>
<th>Date:</th>
<th>Average stress for today</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External stressors (situations, events)</strong></td>
<td><strong>Control (None, Some, Total)</strong></td>
<td><strong>Internal stressors (thoughts, memories, emotions, sensations)</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)
**WEEK 2**  
*Log your stress daily and refer to the resilience model to select coping strategies. If you forget to log a day, leave it blank, **DO NOT** log it later.*

<table>
<thead>
<tr>
<th>DAY 4</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>/10</th>
</tr>
</thead>
</table>
| External stressors  
(situations, events) | Control  
(None, Some, Total) | Internal stressors  
(thoughts, memories, emotions, sensations) | |
| | | | |
| Coping strategies that you selected from the model and helpfulness ratings (out of 10) | | | |

<table>
<thead>
<tr>
<th>DAY 5</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>/10</th>
</tr>
</thead>
</table>
| External stressors  
(situations, events) | Control  
(None, Some, Total) | Internal stressors  
(thoughts, memories, emotions, sensations) | |
| | | | |
| Coping strategies that you selected from the model and helpfulness ratings (out of 10) | | | |

<table>
<thead>
<tr>
<th>DAY 6</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>/10</th>
</tr>
</thead>
</table>
| External stressors  
(situations, events) | Control  
(None, Some, Total) | Internal stressors  
(thoughts, memories, emotions, sensations) | |
| | | | |
| Coping strategies that you selected from the model and helpfulness ratings (out of 10) | | | |

<table>
<thead>
<tr>
<th>DAY 7</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>/10</th>
</tr>
</thead>
</table>
| External stressors  
(situations, events) | Control  
(None, Some, Total) | Internal stressors  
(thoughts, memories, emotions, sensations) | |
| | | | |
| Coping strategies that you selected from the model and helpfulness ratings (out of 10) | | | |
**WEEK 3**  
Log your stress daily and refer to the resilience model to select coping strategies. If you forget to log a day, leave it blank, **DO NOT** log it later.

### EXAMPLE

<table>
<thead>
<tr>
<th>DATE:</th>
<th>Tues 30/7/2013</th>
<th>Average stress for today:</th>
<th>8/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>External stressors (situations, events)</td>
<td>Control (None, Some, Total)</td>
<td>Internal stressors (thoughts, memories, emotions, sensations)</td>
<td></td>
</tr>
<tr>
<td>Received poor result on test</td>
<td>Some</td>
<td>I’m going to fail, worried, tense, increased heart rate.</td>
<td></td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

- **Emotional Support (friend)** - 6/10
- **Physical Exercise (20 min run)** - 8/10
- **Getting advice (arranged meeting with lecturer)** - 7/10

### DAY 1

<table>
<thead>
<tr>
<th>DATE:</th>
<th>Average stress for today:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>External stressors (situations, events)</td>
<td>Control (None, Some, Total)</td>
<td>Internal stressors (thoughts, memories, emotions, sensations)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

### DAY 2

<table>
<thead>
<tr>
<th>DATE:</th>
<th>Average stress for today:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>External stressors (situations, events)</td>
<td>Control (None, Some, Total)</td>
<td>Internal stressors (thoughts, memories, emotions, sensations)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

### DAY 3

<table>
<thead>
<tr>
<th>DATE:</th>
<th>Average stress for today:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>External stressors (situations, events)</td>
<td>Control (None, Some, Total)</td>
<td>Internal stressors (thoughts, memories, emotions, sensations)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)
**WEEK 3**  
*Log your stress daily and refer to the resilience model to select coping strategies. If you forget to log a day, leave it blank, **DO NOT** log it later.*

<table>
<thead>
<tr>
<th>DAY 4</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>_/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(None, Some, Total)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internal stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(thoughts, memories, emotions, sensations)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies that you selected from the model and helpfulness ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAY 5</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>_/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(None, Some, Total)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internal stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(thoughts, memories, emotions, sensations)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies that you selected from the model and helpfulness ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAY 6</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>_/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(None, Some, Total)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internal stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(thoughts, memories, emotions, sensations)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies that you selected from the model and helpfulness ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAY 7</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>_/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(None, Some, Total)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internal stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(thoughts, memories, emotions, sensations)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies that you selected from the model and helpfulness ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>
**WEEK 4** Log your stress daily and refer to the resilience model to select coping strategies. If you forget to log a day, leave it blank, **DO NOT** log it later.

### EXAMPLE

<table>
<thead>
<tr>
<th>DATE: Tues 30/7/2013</th>
<th>Average stress for today: 8/10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External stressors</strong> (situations, events)</td>
<td><strong>Control</strong> (None, Some, Total)</td>
</tr>
<tr>
<td>Received poor result on test</td>
<td>Some</td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

- Emotional Support (friend) - 6/10
- Physical Exercise (20 min run) - 8/10
- Getting advice (arranged meeting with lecturer) - 7/10

### DAY 1

<table>
<thead>
<tr>
<th>DATE:</th>
<th>Average stress for today</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External stressors</strong> (situations, events)</td>
<td><strong>Control</strong> (None, Some, Total)</td>
<td><strong>Internal stressors</strong> (thoughts, memories, emotions, sensations)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

### DAY 2

<table>
<thead>
<tr>
<th>DATE:</th>
<th>Average stress for today</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External stressors</strong> (situations, events)</td>
<td><strong>Control</strong> (None, Some, Total)</td>
<td><strong>Internal stressors</strong> (thoughts, memories, emotions, sensations)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

### DAY 3

<table>
<thead>
<tr>
<th>DATE:</th>
<th>Average stress for today</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External stressors</strong> (situations, events)</td>
<td><strong>Control</strong> (None, Some, Total)</td>
<td><strong>Internal stressors</strong> (thoughts, memories, emotions, sensations)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)
WEEK 4  
Log your stress daily and refer to the resilience model to select coping strategies. If you forget to log a day, leave it blank, **DO NOT** log it later.

<table>
<thead>
<tr>
<th>DAY 4</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(None, Some, Total)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internal stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(thoughts, memories, emotions, sensations)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>that you selected from</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the model and helpfulness</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAY 5</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(None, Some, Total)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internal stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(thoughts, memories, emotions, sensations)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>that you selected from</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the model and helpfulness</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAY 6</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(None, Some, Total)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internal stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(thoughts, memories, emotions, sensations)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>that you selected from</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the model and helpfulness</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAY 7</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(None, Some, Total)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internal stressors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(thoughts, memories, emotions, sensations)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>that you selected from</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the model and helpfulness</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ratings (out of 10)</td>
<td></td>
</tr>
</tbody>
</table>
WEEK 5  Log your stress daily and refer to the resilience model to select coping strategies. If you forget to log a day, leave it blank, **DO NOT** log it later.

<table>
<thead>
<tr>
<th>EXAMPLE</th>
<th>DATE: Tues 30/7/2013</th>
<th>Average stress for today: 8/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>External stressors</td>
<td>Control (None, Some, Total)</td>
</tr>
<tr>
<td></td>
<td>(situations, events)</td>
<td>Internal stressors</td>
</tr>
<tr>
<td></td>
<td>Received poor result</td>
<td>Some</td>
</tr>
<tr>
<td></td>
<td>on test</td>
<td>I’m going to fail, worried,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tense, increased heart rate.</td>
</tr>
</tbody>
</table>

**Emotional Support** (friend) - 6/10  
**Physical Exercise** (20 min run) - 8/10  
**Getting advice** (arranged meeting with lecturer) - 7/10

<table>
<thead>
<tr>
<th>DAY 1</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>___/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td>Control (None, Some, Total)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td>Internal stressors</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(thoughts, memories, emotions, sensations)</td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

<table>
<thead>
<tr>
<th>DAY 2</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>___/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td>Control (None, Some, Total)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td>Internal stressors</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(thoughts, memories, emotions, sensations)</td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)

<table>
<thead>
<tr>
<th>DAY 3</th>
<th>DATE:</th>
<th>Average stress for today</th>
<th>___/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External stressors</td>
<td>Control (None, Some, Total)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(situations, events)</td>
<td>Internal stressors</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(thoughts, memories, emotions, sensations)</td>
</tr>
</tbody>
</table>

Coping strategies that you selected from the model and helpfulness ratings (out of 10)
Log your stress daily and refer to the resilience model to select coping strategies. If you forget to log a day, leave it blank, \textbf{DO NOT} log it later.

<table>
<thead>
<tr>
<th>DAY</th>
<th>DATE</th>
<th>Average stress for today</th>
<th>_/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>External stressors (situations, events)</td>
<td>Control (None, Some, Total)</td>
<td>Internal stressors (thoughts, memories, emotions, sensations)</td>
</tr>
<tr>
<td></td>
<td>Coping strategies that you selected from the model and helpfulness ratings (out of 10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 5

Measures
Depression Anxiety and Stress Scale (DASS-21) used in studies 1, 2 and 3.


Please read each statement and identify how much it applies to you. There are no right or wrong answers. Do not spend too much time on any statement.

Over the past week:

1. I felt that I had nothing to look forward to.
2. I was aware of dryness of my mouth.
3. I couldn't seem to experience any positive feeling at all.
4. I experienced breathing difficulty (e.g., excessively rapid breathing; breathlessness in the absence of physical exertion).
5. I found it difficult to work up the initiative to do things.
6. I tended to over-react to situations.
7. I experienced trembling (e.g., in the hands).
8. I felt that I was using a lot of nervous energy.
9. I was worried about situations in which I might panic and make a fool of myself.
10. I lost interest in the sex life.

Please assign a rating to each item on a scale from 0 to 3, where 0 = 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 time, and 3 = Applied to me to a very considerable degree, or most of the time. If the statement did not apply to you at all, please indicate 0. If it did not apply to you at all, please indicate 0.
<table>
<thead>
<tr>
<th>Item</th>
<th>Score</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>I felt that life was meaningless</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>I felt down-hearted and blue</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>I was intolerant of anything that kept me from getting on with what I was doing</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>I felt I was close to panic</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>I felt I wasn't worth much as a person</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>I was unable to become enthusiastic about anything</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<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>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>I was scared without any good reason</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>I felt I was rather lucky</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>I found it difficult to relax</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>I found myself getting agitated</td>
</tr>
</tbody>
</table>

Subscale Items: Anxiety (Items 2, 4, 7, 9, 15, 19, 29, 30); Depression (Items 3, 5, 10, 13, 16, 17, 21); Stress (Items 1, 6, 8, 11, 12, 14, 18)

**In the past few weeks have you:**

- Lost much sleep over worry?
- Felt constantly under strain?
- Felt you couldn't overcome your difficulties?
- Been feeling unhappy or depressed?
- Been losing confidence in yourself?
- Been thinking of yourself as a worthless person?

**Please read each of the following descriptions carefully and select the answer that most applies to you. We want to know about present/recent complaints, not past complaints.**

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Rather more than usual</th>
<th>No more than usual</th>
<th>Much more than usual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Much less than usual</td>
<td>Less than usual</td>
<td>Same as usual</td>
<td>More so than usual</td>
</tr>
<tr>
<td>---</td>
<td>----------------------</td>
<td>----------------</td>
<td>-------------</td>
<td>------------------</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

In the past few weeks have you:

12. Been feeling reasonably happy, all things considered?
11. Been able to face up to your problems?
10. Been able to enjoy your normal day to day activities?
9. Felt capable of making decisions about things?
8. Felt that you are playing a useful part in things?
7. Been able to concentrate on what you're doing?
<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Feeling as if your future will somehow be cut short?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Feeling emotionally numb or being unable to have loving feelings for those close to you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Feeling distant or cut off from other people?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Loss of interest in things that you used to enjoy?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Trouble remembering important parts of a stressful experience from the past?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Avoiding thoughts or conversations about a stressful experience from the past or avoiding something reminded you of a stressful experience from the past?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Avoiding activities or situations because they remind you of a stressful experience from the past or avoiding something reminded you of a stressful experience from the past?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Feeling very upset when something reminded you of a stressful experience from the past?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Feeling as if your future will somehow be cut short?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Feeling emotionally numb or being unable to have loving feelings for those close to you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Feeling distant or cut off from other people?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the last month, how much have you been bothered by the following problems?

13. Trouble falling or staying asleep?

14. Feeling irritable or having angry outbursts?

15. Having difficulty concentrating?

16. Being "super alert" or watchful as if on guard?

17. Feeling jumpy or easily startled?
### Acceptance and Action Questionnaire (AAQ-II)

This questionnaire is used in studies 1, 2, and 3.

#### Source:

#### Below you will find a list of common reactions to stress. Please rate how true each statement is for you by using the scale below:

1. Never true
2. Very seldom true
3. Seldom true
4. Sometimes true
5. Frequently true
6. Almost always true
7. Always true

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>My painful experiences and memories make it difficult for me to live a life that I would value.</td>
<td>1</td>
</tr>
<tr>
<td>It seems like most people are handling their worries better than I am.</td>
<td>1</td>
</tr>
<tr>
<td>Emotions cause problems in my life.</td>
<td>1</td>
</tr>
<tr>
<td>My painful memories prevent me from having a fulfilling life.</td>
<td>1</td>
</tr>
<tr>
<td>I worry about not being able to control my worries and feelings.</td>
<td>1</td>
</tr>
<tr>
<td>I worry about my feelings.</td>
<td>1</td>
</tr>
<tr>
<td>It seems like most people are handling their lives better than I am.</td>
<td>1</td>
</tr>
<tr>
<td>Worrying gets in the way of my success.</td>
<td>1</td>
</tr>
</tbody>
</table>

Below you will find a list of common reactions to stress. Please rate how true each statement is for you by using the scale below:

1. Never true
2. Very seldom true
3. Seldom true
4. Sometimes true
5. Frequently true
6. Almost always true
7. Always true

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>My painful experiences and memories make it difficult for me to live a life that I would value.</td>
<td>1</td>
</tr>
<tr>
<td>It seems like most people are handling their worries better than I am.</td>
<td>1</td>
</tr>
<tr>
<td>Emotions cause problems in my life.</td>
<td>1</td>
</tr>
<tr>
<td>My painful memories prevent me from having a fulfilling life.</td>
<td>1</td>
</tr>
<tr>
<td>I worry about not being able to control my worries and feelings.</td>
<td>1</td>
</tr>
<tr>
<td>I worry about my feelings.</td>
<td>1</td>
</tr>
<tr>
<td>It seems like most people are handling their lives better than I am.</td>
<td>1</td>
</tr>
<tr>
<td>Worrying gets in the way of my success.</td>
<td>1</td>
</tr>
</tbody>
</table>
The following items ask what you've been doing to cope with stress. Each item refers to a different way of coping. Please read each item carefully.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Haven't been doing this at all</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Have been doing this a little bit</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Have been doing this a medium amount</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Have been doing this a lot</td>
<td>4</td>
</tr>
</tbody>
</table>

*In the past 2 months, please indicate how often you have used the following strategies to help you cope with stress.*

*Note: Consider the Brief COPE Inventory used in studies 1, 2, and 3.*
The following items ask what you've been doing to cope with stress. Each item refers to a different way of coping. Please read each item carefully.

In the past 2 months please indicate how often you have used the following strategies to help you cope with stress:

1. I've been making fun of the situation
2. I've been praying or meditating
3. I've been blaming myself for things that happened
4. I've been thinking hard about what steps to take
5. I've been learning to live with it
6. I've been trying to get advice or help from other people about what to do
7. I've been trying to find comfort in my religion or spiritual beliefs
8. I've been expressing my negative feelings
9. I've been accepting the reality of the fact that it has happened
10. I've been learning to live with it
11. I've been making jokes about it
12. I've been looking for something good in what is happening
13. I've been thinking of something to think about it less, such as going to movies
14. I've been doing something to think about it less, such as going to movies
15. I've been daydreaming, sleeping, or shopping
16. I've been trying to come up with a strategy about what to do
17. I've been getting comfort and understanding from someone
18. I've been making fun of the situation
19. I've been praying or meditating
20. I've been trying to come up with a strategy about what to do

In the past 2 months please indicate how often you have used the following strategies to help you cope with stress.
Mindful Attention Awareness Scale (MAAS) used in studies 1 and 2.


Below is a collection of statements about your everyday experience. Please answer according to what really reflects your experience rather than what you think your experience should be.

Please indicate how frequently or infrequently you currently have each experience.

*Almost never, Somewhat infrequently, Infrequently, Occasionally, Frequently, Very frequently, Almost always.*

Please answer according to what really reflects your experience rather than what you think your experience should be.

1. I find myself getting into someone with one ear, doing something else at the same time.
2. I do jobs or tasks automatically, without being aware of what I'm doing.
3. I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.
4. I rush through activities without really attending to them.
5. I'm so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.
6. I break or spill things because of carelessness, not paying attention, or thinking of something else.
7. It seems I'm "running on auto-pilot," without much awareness of what I'm doing.
8. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.
9. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.
10. I do jobs or tasks automatically, without being aware of what I'm doing.
11. I find myself listening to someone with one ear, doing something else at the same time.
12. I drive places on automatic pilot and then wonder why I went there.

13. I find myself preoccupied with the future or the past.


15. I snack without being aware that I'm eating.
### Cognitive and Affective Mindfulness Scale (CAMS-R) used in study 3

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>It is easy for me to concentrate on one thing for a long period of time.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Almost Always</td>
</tr>
<tr>
<td>2.</td>
<td>I am able to focus on the present moment.</td>
<td>Almost Always</td>
<td>Sometimes</td>
<td>Never</td>
</tr>
<tr>
<td>3.</td>
<td>I am able to accept the thoughts and feelings I have.</td>
<td>Almost</td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>4.</td>
<td>I try to notice my thoughts without judging them.</td>
<td>Often</td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>5.</td>
<td>It is easy for me to keep track of my thoughts and feelings.</td>
<td>Always</td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>6.</td>
<td>I am easily distracted.</td>
<td>Always</td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>7.</td>
<td>I am preoccupied by the past.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Always</td>
</tr>
<tr>
<td>8.</td>
<td>I can usually describe how I feel at the moment in considerable detail.</td>
<td>Almost</td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>9.</td>
<td>I can accept changing my thoughts.</td>
<td>Sometimes</td>
<td>Never</td>
<td>Always</td>
</tr>
<tr>
<td>10.</td>
<td>I am able to accept the thoughts and feelings I have.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Always</td>
</tr>
<tr>
<td>11.</td>
<td>I am able to focus on the present moment.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Always</td>
</tr>
<tr>
<td>12.</td>
<td>I am able to pay close attention to one thing for a long period of time.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Always</td>
</tr>
</tbody>
</table>

#### Ego-Resiliency Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Scale</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am generous with my friends.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>2. I quickly get over and recover from being startled.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>3. I enjoy dealing with new and unusual situations.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>4. I usually succeed in making a favorable impression on people.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5. I enjoy trying new foods I have never tasted before.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>6. I am regarded as a very energetic person.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>7. I like to take different paths to familiar places.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>8. I am more curious than most people.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>9. Most of the people I meet are likeable.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>10. I usually think carefully about something before acting.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>11. I like to do new and different things.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>12. My daily life is full of things that keep me interested.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>13. I would be willing to describe myself as a pretty “strong” personality.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>14. I get over my anger at someone reasonably quickly.</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Resilience Scale (RS and RS-14) used in study 2 and 3

<table>
<thead>
<tr>
<th>Item</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When I make plans, I follow through with them</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. I usually manage one way or another</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. I am able to depend on myself more than anyone else</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. Keeping interested in things is important to me</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. I can be on my own if I have to</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. I feel proud that I have accomplished things in my life</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. I usually take things in my stride</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. I am friends with myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. I feel that I can handle many things at a time</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. I am determined</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. I seldom wonder what the point of it all is</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Please read each statement below and select the number which best indicates your feelings about that statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Neutral</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I take things one day at a time</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>2. I have enough energy to do what I have to do</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>3. I can get through difficult times because I've experienced difficulty before</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>4. My self-discipline</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>5. I keep interested in things</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>6. I can usually find something to laugh about</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>7. My belief in myself gets me through hard times</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>8. In an emergency, I'm someone people can generally rely on</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>9. I can usually look at a situation in a number of ways</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>10. Sometimes I make myself do things whether I want to or not</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>11. My life has meaning</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>12. I do not dwell on things that I can't do anything about</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>13. I can usually find my way out of it</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>14. I have self-discipline</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>15. My resilience</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>16. It's okay if there are people who don't like me</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>17. My belief in myself gets me through hard times</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>18. I have enough energy to do what I have to do</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>19. I can usually laugh about something</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>20. Sometimes I make myself do things whether I want to or not</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>21. My life has meaning</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>22. I can usually find my way out of it</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>23. I can usually laugh about something</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>24. I can usually look at a situation in a number of ways</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>25. I can usually laugh about something</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

Please read each statement below and select the number which best indicates your feelings about that statement.
### Positive Affect

**Positive Affect Schedule (PANAS)** used in study 1 and 2.


**During the past week, to what extent have you felt the following emotions?**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>A little</td>
<td>Moderately</td>
<td>Quite a bit</td>
<td>Extremely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Below are domains of life that are valued by some people. We are concerned with your subjective experience of your quality of life in each of these domains. One aspect of quality of life involves the importance one puts on the different domains of living. Rate the importance of each domain on a scale of 1-10. Not everyone will value all of these domains, or value all domains the same. Rate each domain according to your own personal sense of importance.

<table>
<thead>
<tr>
<th>Domain</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreation/fun</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education/training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends/social life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marriage/couples/intimate relations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical self care (diet, exercise, sleep)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citizenship/Community life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spirituality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parenting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family (other than marriage or parenting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Everyone will value all of these domains, or value all domains the same. Rate each domain according to your own personal sense of importance.*
In this section, we would like you to give a rating of how consistent your actions have been with each of your values. We are not asking about your ideal in each area. We are also not asking what others think of you. Everyone does better in some areas than others. People also do better at some times than at others. We want to know how you think you have been doing during the past week. Rate each area on the scale from 1 - 10.

<table>
<thead>
<tr>
<th>Area</th>
<th>Rating</th>
<th>Value</th>
<th>Not at all Consistent</th>
<th>Partially Consistent</th>
<th>Completely Consistent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Recreation/ Fun</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Education/ Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Friends/ Social life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Marriage/ Partners/ Intimate Relations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Physical self care (diet, exercise, sleep)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Citizenship/ Community Life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Spirituality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Parenting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Family (other than marriage or parenting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td>Options</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-----------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I continued to get better at being the kind of person I want to be</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I made progress in the areas of my life I care most about</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I was proud about how I lived my life</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. My behaviour was a good example of what I stand for in life</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Values Progress Scale used in studies 2 and 3.**

Satisfaction with Life Scale (SWLS) used in study 3.

The Berlin Social Support Scales (BSSS) used in study 3.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Strongly Disagree</th>
<th>Agree</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There are some people who truly like me.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Whenever I am not feeling well, other people show me that they are fond of me.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Whenever I am sad, there are people who cheer me up.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. There is always someone there for me when I need comforting.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I know some people upon whom I can always rely.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Whenever I am worried, there is someone who helps me.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. There are people who offer me help when I need it.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. When everything becomes too much for me to handle, others are there to help me.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please indicate the extent to which you agree with each of the following statements.
### Homework Rating Scale (HRS) used in study 3.

<table>
<thead>
<tr>
<th>Question</th>
<th>1: Not at all</th>
<th>2: Somewhat</th>
<th>3: Moderately</th>
<th>4: Very</th>
<th>5: Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How well did you do the homework?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. How difficult was the homework?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How much did obstacles interfere with the homework?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How well did you understand the reason for doing the homework?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. How well did you understand what you needed to do?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. How specific were the homework guidelines?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. How well did the homework match the resilience training goals?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. How much did you enjoy doing the homework?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. How much did the homework help you to gain control over your problems?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Did the homework help you to become more resilient?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### The workshop homework

The workshop homework involved logging your stress each day and selecting coping strategies to deal with what you were experiencing that day based on the resilience model (what was introduced in the workshop). The following questions apply to the homework exercises. Please read each statement carefully and identity which option best describes your overall experience of the homework.

### Source