The curious case of the designer vagina. Genital satisfaction, pornography and self-objectification: an empirical investigation

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Research Contribution Statement

The work described in this thesis is an accurate account of research performed during the academic program towards the degree of Doctor of Philosophy.

The first paper, ‘Labiaplasty, Race and the Colonial Imagination’ I co-authored with Dr Camille Nurka. I participated in the planning and discussion of this paper and its critical editorial review. However, Dr Nurka drafted the paper. The second paper ‘Labiaplasty and pornography: a preliminary investigation’ was co-authored with Dr Nurka. Together we conceived the study. I designed the questionnaire, deployed it, undertook the analyses, and drafted the majority of the paper. Dr Nurka drafted the Introduction. I received input from Dr Glenys Bishop regarding the analyses. The review paper ‘Self-objectification and depression: an integrative systematic review’ was co-authored with Professor Kathy Griffiths. I conceived the study, undertook the literature searches, reviewed the papers, extracted the data and drafted the paper. Prof Griffiths discussed and critically edited the paper. Mr Bradley Carron-Arthur was second reviewer for the studies in this paper. The last two papers were co-authored with Professor Kathy Griffiths and Dr Boris Bizumic. Both papers related to a single study that I designed and deployed. I conducted the analyses and drafted the papers. Prof Griffiths provided guidance regarding the design of the study and Dr Bizumic provided advice about the analysis. Both participated in the critical editorial review of the papers.

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Bethany Jones  
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Dedication

For my daughters, Aeronwy and Aaliya: may you be women who weigh your worth by your actions and not your shape.

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I would like to acknowledge a number of people who have been instrumental in helping through this process. Firstly, thank you to my Supervisory Chair, Professor Kathy Griffiths. Her outstanding guidance and mentorship has been an integral part of my development as an academic. Her unshakable belief in me has supported me through some very difficult times. I would also like to acknowledge Dr Camille Nurka for some of the most interesting conversations ever, and Dr Boris Bizumic for excellent advice and guidance. Along with my supervisory panel, I would also like to thank Professor Helen Christensen and Professor David Ellwood for their support in the early part of my candidature. The staff of the National Institute for Mental Health Research is an amazing team and I would particularly like to acknowledge Ms Fiona Hurley, administrator extraordinaire. Her incredible knowledge and enormous heart have earned my thanks and respect. I would also like to thank Dr Mel Haines and Dr Inger Mewburn for running Thesis Boot Camp and the Veteran’s Days and allowing me to submit on time. I am truly grateful for the opportunity to be a part of the program. In my personal life I would like to thank my friends, especially Jen and Alex Voudiotis and Christina Saladino for lots of tea, wine and house space. A huge thank you also goes to my amazing and courageous sister. Lastly, thank you to Mama, Da and Barry Gordon for support throughout the years.
Abstract

Many popular writers and academic theoreticians have postulated that pornography is the main, or only driver of labiaplasty. In this model, that we have termed the Porn Thesis, women consume pornography, compare themselves unfavourably with the women depicted, become dissatisfied with their genitals and seek surgery. We hypothesised that common historical bases underpin both modern cosmetic labiaplasty and pornographic aesthetic conventions. The Porn Thesis has never been tested empirically. The five studies that comprise this thesis investigated the accuracy and utility of the Porn Thesis as a model for genital satisfaction, and proposed and evaluated alternative predictors. The study findings indicated that the Porn Thesis is not a useful model for understanding genital satisfaction. Our initial model, based only on the Porn Thesis and therefore including only demographic predictors and pornography consumption did not account for the variance in genital satisfaction. Analysis of the open-ended questions indicated that women were assessing their bodies in an holistic fashion, rather than comparing themselves to outside images. Accordingly, we identified Objectification Theory as a potential predictor of genital satisfaction. Objectification Theory posits that exposure to sexually objectifying experiences and media (including pornography) is deleterious to the psychological wellbeing of women. Unlike the Porn Thesis, Objectification Theory has testable outcomes. Additionally, self-objectification peaks at the time at which most girls are experiencing pornography for the first time. We assessed the accuracy of Objectification Theory through a systematic review of the literature investigating the role of self-objectification in the development of depression. We found that empirical work largely supported the predictions of the theory, although many studies failed to include common risk factors for depression. We then deployed a
second study investigating predictors for genital satisfaction including pornography consumption, self-objectification and other predictors. We found that self-objectification was the only modifiable factor that remained in the model. This has implications for clinicians and policy-makers. Lastly, we investigated the role of self-objectification in depression and disordered eating in the context of other predictors. The Objectification Theory model was not supported for the depression outcome. However, it was supported with regard to disordered eating.

Overall, we found no support for the assertion that pornography consumption impacts negatively on women’s genital self-assessment. However, self-objectification, as a model that incorporates media and bodily evaluation may have practical implications in this field.
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1.0 Introduction

This thesis represents a journey of understanding that traversed several fields of study including labiaplasty, genital satisfaction, pornography and self-objectification. It is claimed in the popular media and the academic literature that pornography is wholly, or largely responsible for rapid increases in demand for cosmetic labiaplasty. However, these claims have not been investigated empirically. Our initial exploratory investigations found little support for this model. Accordingly, further systematic research was undertaken to investigate the relationship between pornography, labiaplasty and a range of other candidate factors such as genital satisfaction and self-objectification. There were two major findings from the current program of research. First, our research suggests that the adverse impacts of broader sexism and objectification are far greater than for pornography alone. Singling out pornography as a vector of particular harm is not warranted in these circumstances. Secondly, the role of self-objectification in the genesis of mental illness is supported and extended by the current work. We have found support for the association between self-objectification and depression, a finding which has important new implications for the design of effective prevention programs. We have also demonstrated that self-objectification may have implications beyond the publicly visible body. In particular, the process of self-objectification, while itself not evaluative, may be associated with evaluation and critique of the vulva. These findings represent important contributions that will inform not only the work of researchers in the field but also that of policymakers and clinicians.

The thesis comprises a series of published papers describing the rationale, methodology, and outcomes of the research in detail, preceded by a contextual statement and closing
with an integrated conclusion. The contextual statement presented in this chapter provides a frame of reference for the published work, incorporating a critique of the initial pornography-labiaplasty theory (Section 1.1), and including a brief summary of the empirical literature on labiaplasty (Section 1.2.1), genital satisfaction (Section 1.2.2), pornography (Section 1.2.3) and self-objectification (Section 1.2.4). The statement concludes with an enumeration of the thesis aims (Section 2.0) and an integrated discussion on the findings of the included papers (3.0) incorporating a brief synopsis of findings (3.1).

1.1 The ‘Porn Thesis’: A critical analysis

For the purposes of this work, I have termed the commonly reported link between pornography and labiaplasty as the ‘Porn Thesis’. In this model, journalists and academic theorists present pornography as the primary or only driver of labiaplasty (Green, 2005; Newton, 2012; V. Schick, Rima, & Calabrese, 2011). The argument they present is based on the assumption that women who wish to modify their vulvas must do so because they are not aware of the full range of normal vulvar morphology. As pornography is the most common publicly accessible source of images of vulvas, and as pornography is usually claimed to comprise a non-representative sample of vulvas, it is concluded that women’s perceptions of the ‘normal’ vulva are skewed resulting in dissatisfaction with their own anatomy and a decision to seek surgery to redress the issue.

I acknowledge that there are other voices that do not necessarily share the ‘Porn Thesis’ view. The model I have presented is ‘hypodermic’; that is, it assumes a direct action of the media on the individual. Alternatively, pornography may affect genital satisfaction
in women through influencing male preferences (Miklos & Moore, 2008; David Veale et al., 2014) and their female partners by way of comments or requests about the genitals of their female partners. Other theorists claim that it is the ‘pornogrification’ or ‘pornification’ of our culture that is truly to blame (Grabe & Hyde, 2009). In these scenarios, the proliferation of pornographic aesthetics into popular culture, and the sequelae (such as pubic hair removal) are the primary drivers of labiaplasty. While these and the hypodermic argument describe different mechanisms, there is still no question that in all the models pornography is depicted as central to the practice of cosmetic labiaplasty. Many of the errors of assumption that I discuss below apply equally to these models.

The Porn Thesis is based on a number of assumptions, some of which are doubtful; others are incorrect. These include the following:

1. Rates of labiaplasty are increasing very rapidly.
2. Many (or most) women are dissatisfied with the appearance of their vulvas.
3. The increase in the availability of pornography and the reported increase in labiaplasty share a causal relationship.
4. Pornography represents only one type of vulva.
5. Variables of individual difference have little impact.

I will explore each of these assumptions and examine the evidence for their veracity below.

**Assumption 1. Rates of labiaplasty are increasing very rapidly**

When reporting this statistic, most authors rely on raw data counts only. This can be misleading for a number of reasons. Firstly, populations are increasing, so increases in numbers of surgeries are to be expected even if there are no changes in rates. Second,
cosmetic surgery rates are increasing across the full range of procedures as the sector is growing faster than the population (American Society for Aesthetic Plastic Surgery, 2012). If labiaplasty is growing rapidly due to the influence of pornography, it might be expected that labiaplasty rates would increase faster than other procedures i.e. that it would comprise a larger share of procedures over time.

In Australia, no figures are available on rates of labiaplasty in the private sector. However, public health records show an increase of 100% over a decade (Department of Human Services, 2013a, 2013b). While some of this increase may be due to population expansion, it is clear that this growth is higher than population growth. However, without equivalent statistics in the private sector we are unable to determine if the overall rate of labiaplasty is increasing over and above the rate of cosmetic surgery growth in Australia. It is possible that private rates have remained stable, or even dropped, moderating the effect of the large growth in the public sector. Alternatively, it is possible that the entire cosmetic surgery field has grown dramatically. A full set of data is required to determine the true and relative state of labiaplasty growth in Australia. Anecdotal reports from cosmetic and plastic surgeons that it is a burgeoning field must be treated with caution, as they have vested interests in the normalising of such procedures.

In the United Kingdom, there are similar missing data, with only public health statistics being reported (also showing a dramatic increase over a decade) (Braun, 2010). However, in the United States, with no public health system, there are more comprehensive data. In particular, the American Society for Aesthetic Plastic Surgery has collected data on the number of cosmetic surgery procedures performed by its members since 2007. These data are voluntary and do not include all practitioners who
perform cosmetic procedures, and therefore cannot be considered definitive. However, the data are more complete than in Australia or the United Kingdom.

The American Society for Aesthetic Plastic Surgery data showed no growth in ‘vaginal rejuvenation’ surgeries (of which labiaplasty is reportedly the most popular) over the period 2007 - 2012. These surgeries comprised a reasonably steady 0.2% of procedures over these years (American Society for Aesthetic Plastic Surgery, 2007, 2008, 2009, 2010, 2011, 2012). However, the 2013 data from this body classified labiaplasty as a separate item and this one item comprised 0.3% of surgeries (American Society for Aesthetic Plastic Surgery, 2013). It is unclear whether this apparent increase in demand will continue, or whether it will prove to be an outlier. However, these figures suggest that there may be a recent increase in demand for labiaplasty, although it is likely that the increase is not as dramatic as many authors claim.

Assumption 2. Many (or most) women are dissatisfied with the appearance of their vulvas

This claim is usually promulgated in the popular media. Stories on labiaplasty and genital dissatisfaction leave the reader with the impression that a majority of women are dissatisfied with their vulvas (Conville; Freeman-Greene, 2009; Stark, 2010). This contrasts with evidence from the recent scientific literature. In particular, studies of genital satisfaction over the years 2009-2012 have found little evidence of genital dissatisfaction, and no trend towards increasing dissatisfaction over time (Bramwell & Morland, 2009; Herbenick et al., 2011; Zielinski, Kane-Low, Miller, & Sampselle, 2012). Bramwell and Morland (2009) found that 50% of women were ‘always’ satisfied with the appearance of their vulvas. While this implies that 50% are dissatisfied at some time, only 3% responded that they ‘never’ felt their genitals were normal in appearance. More recent studies (Herbenick et al., 2011; Zielinski et al., 2012)
2012) have found even lower levels of dissatisfaction among women. For example in 2010, a nationally representative survey found roughly 25% of American women expressed any dissatisfaction with their genitals (Herbenick et al., 2011), and a 2012 study found that participants scored around 30 out of a possible 40 on the Genital Self-Image Scale (Zielinski et al., 2012) (with low scores indicating dissatisfaction). It is therefore unlikely that genital dissatisfaction is increasing in the community as is often reported in the popular media.

**Assumption 3. The increase in the availability of pornography and the reported increase in labiaplasty share a causal relationship**

This assumption is at the heart of the porn thesis. As access to the internet has expanded, more and more people are exposed to pornography at younger and younger ages. As assumption 1 states that labiaplasty is also growing exponentially, many authors conclude that one must be causing the other (Braun & Tiefer, 2009; Koning, Zeijlmans, Bouman, & Lei, 2009; Newton, 2012; Rodrigues, 2012). There are two main problems with this assumption. Firstly, as I have argued above, we do not know that labiaplasty is increasing rapidly. There are not sufficient data to support such a claim. Given this, it is not possible to determine if there is a correlation between accessibility of pornography and rates of labiaplasty. However, even if such a link could be established, it is not appropriate to assume causality from a correlational relationship. It is possible that separate common factors explain both our cultural embrace of labiaplasty and the pornographic ideal of small labia minora.

**Assumption 4. Pornography represents only one type of vulva**

Inherent in the Porn Thesis is the assumption that pornography has a monolithic presentation, that is, that it is uniform in content and presentation. Some commentators
have argued that our current laws around obscenity influence the production of pornography and limit the way in which the vulva is represented (Deans, 2013; Freedman, 2010; Jacob, 2013). A piece on the Australian Broadcasting Corporation’s ‘Hungry Beast’, a current affairs program, characterised by investigative journalism, investigated the role of classification (Drysdale, 2010). Drysdale reported that editors of large, ‘soft’ pornographic magazines claimed that they were unable to show labia minora, as they are classified as obscene and magazines containing them cannot be sold in newsagents. Accordingly, they modified the images that are presented to ‘heal’ the image to ‘a single crease’ thereby removing the labia minora. This would appear to be supported by the recent case of the University of Sydney student magazine, Honi Soit. The editors of the publication were forced to remove it from distribution after a printing error left vulvas visible on the cover (O’Brien, 2013). They were advised by a legal team that they were open to prosecution under Australia’s obscenity laws.

However, these laws apply only to print magazines. Those who claim that pornography is responsible for labiaplasty are largely citing Internet pornography as the main cause due to its accessibility. The legal restrictions that apply to print publications are not applicable in the case of Internet pornography. For example, a recent study examined the representation of labia minora in Internet pornography, medical textbooks and feminist texts (Howarth, Sommer, & Jordan, 2010). They found that the widest range of vulvar morphology was present in the feminist texts. However, the medical and Internet sources covered a similar range of vulvas. While the Internet pornography was skewed more strongly towards the smallest categorisation of labial size, there was still significant variation within the media.

**Assumption 5. Variables of individual difference have little impact.**
The assumption that pornography is the primary driver of labiaplasty precludes or minimises the role of variables of individual difference. As documented in assumption 1, labiaplasty is not a very common surgery, while exposure to pornography or its aesthetics is almost ubiquitous. This indicates that widespread cultural phenomena, while perhaps having some impact, are unlikely to supersede individual differences among women as an explanation of the choice to undergo labiaplasty. There are likely to be variables of individual difference that explain why, although almost all women are exposed to pornography or its aesthetics, very few elect for labiaplasty surgery.

Examination of the assumptions of the Porn Thesis throws its veracity into question. However, as it is likely that there has been an increase in labiaplasty, and that pornography contains skewed images of vulvas, it is important to understand why some women elect to undergo such a procedure.

1.2 Labiaplasty, genital satisfaction, pornography and self objectification:

Background and empirical evidence

Significantly, there is no extant literature specifically examining the relationships between pornography, genital satisfaction, and openness to labiaplasty. Nevertheless, this thesis draws on a number of bodies of research including empirical work on labiaplasty, genital satisfaction and the personal harms/benefits associated with pornography consumption. Accordingly, this section presents a brief critical overview of this work. The thesis is also concerned with the relationship between objectification and depression. The latter is systematically reviewed in the published paper presented in Chapter 3 and will not be repeated here. However, for the benefit of the reader we provide an extended description of Objectification Theory.
The overwhelming majority of empirical academic papers on labiaplasty focus on surgical techniques, rather than a social investigation of the phenomenon, or characteristics or motivations of women seeking such surgery. However, there is an early body of research into these questions. For example, Veal et al (David Veale et al., 2014) found that women who sought labiaplasty were more likely to have experienced negative comments about their genital appearance. Similarly, these women were more likely to be dissatisfied with their genitals, to have poorer overall body image and to be less satisfied with their sexual functioning (D. Veale et al., 2014). Another investigation of labiaplasty seekers found that media exposure, peer influence and quality of relationships were associated with consideration of labiaplasty (Sharp, Tiggemann, & Mattiske, 2015).

Few studies have investigated the motivations of women seeking genital cosmetic surgery. Studies conducted by clinicians who offer the surgery have reported that functional complaints are a major component of women’s desire for labiaplasty (Veale et al., 2013). However, as such a motivation enables the woman to gain access to the procedure under public health schemes, such as the National Health Service in the UK, or Australia’s Medicare, there is reason to believe these data may be skewed. Even in the United States where no such public health system exists, it is plausible that patients might distort their reasons for seeking labiaplasty due to reasons of social desirability (ie, reluctance to appear ‘vain’) or in an effort to persuade the physician (ie, where the patient fears the physician will refuse to conduct the procedure on the grounds that it is not necessary). A recent interesting study (Zwier, 2014) compared motivations as discussed by women on anonymous online forums with the stated reasons given by surgeons. They found that emotional distress was the leading motivation for seeking
labiaplasty when women were talking to peers on an anonymous forum, as compared with functional complaints listed by surgeons. It is possible that the views expressed on online forums are not representative of those of the general population of women who seek labiaplasty. However, Zwier’s findings do raise questions about the validity of the information supplied by patients to surgeons and suggests that factors other than functional complaints may play an important role in the decision to seek labiaplasty.

Many people, both academic and writers in the popular press, have argued that increases in labiaplasty are due primarily to increases in women’s dissatisfaction with their genitals, as opposed to, say, increases in the acceptability of the surgery. For example, an experimental study (Moran & Lee, 2014) found that exposure to modified images of vulvas was associated with changes in the perception of what is ‘normal’ and desirable. However, it is not clear that enough women are exposed to an effective ‘dose’ of these images to generate a measurable increase in labiaplasty.

Barbara and colleagues (Barbara, Facchin, Meschia, & Vercellini, 2015) have argued that the increasing numbers of women seeking labiaplasty is due to “the development of a new vulvovaginal standard due to Internet pornography and the increased exposure of female genitalia” (Barbara et al., 2015 p.915). Similarly, McDougall (McDougall, 2013) stated that as media show only “minimalist clean slits” (p. 784) as an example of the ‘new vulvovaginal standard’. The author claims that the implicit message in these images is that women should be concerned if their own genitals do not match this notional ideal. If that were the case, we would expect to see greater numbers of women experiencing genital dissatisfaction over time. Studies of strategies deployed by surgeons seeking to attract clients have found that not only do marketing strategies seek to pathologise normal genital morphology, but also the normalisation of cosmetic
surgery (Moran & Lee, 2014). Similarly, Liao and colleagues (Liao, Taghinejadi, & Creighton, 2012) found that the content of surgeons’ websites was typically loaded with information designed to beguile including the purported benefits of the surgery, with minimal information about possible risks. It is therefore possible that any increases in demand might be attributable primarily to marketing and acceptability, rather than to changes in the underlying distribution of genital satisfaction.

However, genital satisfaction is a relatively recent concept, and few studies have investigated this factor. It was not until 2009 that Bramwell and Morland developed the first genital satisfaction scale: the Genital Appearance Satisfaction Scale (GAS) (Bramwell & Morland, 2009). In their validation study of the GAS among women in the community, the researchers found a very high level of general genital satisfaction. Half of the women surveyed were ‘always’ satisfied with their genital appearance, and only 3% were never satisfied. Schick and colleagues (V. R. Schick, 2010) found that in a college sample of women, the mean score on the Vulva Appearance Dissatisfaction Scale was nearly 18 out of a possible 25 (with higher scores indicating higher satisfaction). A nationally representative sample recruited to validate the Female Genital Self-Image Scale (FGSIS) (Herbenick et al., 2011) found that women were generally satisfied with the appearance of their vulva. Similarly, in another study of the FGSIS in a community sample of women, In 2012 DeMaria et al (DeMaria, Hollub, & Herbenick, 2012) reported that the mean score was 22 out of a possible 28 (with higher scores indicating greater satisfaction). Further, in a contemporaneous study, Yurteri-Kaplan et al (Yurteri-Kaplan et al., 2012) found that the majority of women (roughly 80%) were satisfied with the appearance of their vulva using a single item. A 2013 study of Israeli women found generally high levels of genital satisfaction (Yulevitch, Czamanski-Cohen, Segal, Ben-Zion, & Kushnir, 2013) on the Genital Self-Image Scale.
However, genital satisfaction of women seeking labiaplasty may be lower than that of other women. Veale and colleagues (Veale et al., 2013) found that while women seeking labiaplasty were very dissatisfied with their vulvas (scoring a median of nearly 24 out of a possible 33 on the Genital Appearance Satisfaction Scale where higher scores indicate higher dissatisfaction), a control sample of women in the community scored a median of 6. No other studies have reported levels of satisfaction among women seeking labiaplasty. There is therefore a clear need to further investigate the relationship between these two factors.

There is no evidence of an increasing trend of genital dissatisfaction among women. However, it is possible that the emergence of a detectable trend requires a longer period of data collection than the 5 years over which genital satisfaction has been undertaken to date. Future research in this field is required to identify any time trends in genital satisfaction.

The primary driver of this purported increases dissatisfaction is pornography; in particular, the increased availability of Internet pornography. While many claims have been made about the supposed harms, or benefits of pornography consumption, there is little empirical evidence to inform such claims. Of the extant studies, the overwhelming majority are cross-sectional leading limiting the validity of any conclusions based on them. For example, many people have found an association between pornography consumption and greater numbers of sexual partners. However, there is more than one possible interpretation of these findings. Are people with a higher sex drive more likely to have a greater number of partners, and also more likely to consume pornographic media? Conversely, does frequent consumption of pornography change the sexual desires of viewers? Additionally, while the research in this field presents itself as
objective, moral judgments are often observed in this body of work. For example, in investigating whether pornography is harmful, the assumption that sex is always ‘bad’ for younger people, or that a larger number of sexual partners is always ‘bad’ is a morality judgment on the appropriateness of those sexual behaviours. Research into the association between porn and actual risky behaviour (such as unprotected sex) has yielded less strong evidence of a link between pornography and negative outcomes, with many studies into mainstream porn consumption finding no association between safe sex practices and pornography consumption. For the purposes of this discussion, judgements about morality will not be reported as negative outcomes, but as neutral.

There have been some negative outcomes associated with pornography use. For example, Brown, L’Engle and colleagues (Brown et al., 2006) conducted longitudinal analyses and found that early exposure to pornographic material predicted less progressive gender role attitudes among females; and, less progressive gender roles and sexual harassment perpetration for males. Some studies have found negative impacts on interpersonal relationships. In a study of males only, (Sun, Bridges, Johnason, & Ezzell, 2014) researchers found that higher pornography consumption was associated with concerns over body image and sexual performance, and negatively associated with enjoyment of sex with a partner. A more recent study(Arrington-Sanders et al., 2015) (2015) found that for young same-sex attracted Black men, pornography consumption was associated with greater risk-taking behaviour such as unprotected anal intercourse and swallowing of semen.

However, there are a great number of studies that show pornography is associated either with no harm, or with an actual benefit. For example, Wright and Randall (Wright & Randall, 2012) found that pornography consumption was associated with multiple sex partners, and extramarital sex, but it was unrelated to unsafe sex practices. Harkness
(Harkness, 2014) also reported that daily or greater pornography use was not associated with risky sexual behaviours, nor body image or genital satisfaction. A pattern of association between pornography and a larger number of partners was also found in a comprehensive study by Braithwaite, Coulson, Keddington, Fincham (Braithwaite, Coulson, Keddington, & Fincham, 2015) who reported that pornography consumption was associated with greater promiscuity, including higher numbers of hook-ups, and higher numbers of unique hook-up partners, more sex partners, more one night stands, and more plans to have a higher number of partners in the future. However, there were no measures of safe sexual practices among participants. Although the study was longitudinal in design, the very short timeframe (3 months) does not allow for firm statements of directionality or causality. It may be that people who are sexually empowered, and who have a high sex drive consume more pornography. Indeed, Weinberg, Williams, Kleiner, Irizarry (Weinberg, Williams, Kleiner, & Irizarry, 2010) found that pornography consumption was associated with greater willingness to expand repertoire and greater empowerment. Similarly, Johnston (Johnston, 2013), in a nationally representative sample used a retrospective questionnaire and found early, frequent viewing of porn was associated with higher sexual satisfaction. Kvalem, Traeen, Lewin, Stulhofer (Kvalem, Traeen, Lewin, & Štulhofer, 2014) studied young people. They found that porn may have a modest positive effect on sexual self-esteem for young men, while Harkness (Harkness, 2014) found high pornography consumption was associated with higher sexual communication in women.

One of the ways in which pornography may contribute to poorer outcomes for women may be through self-objectification. Objectification Theory was proposed in 1997 and is grounded in feminist perspectives (Fredrickson & Roberts, 1997). The aim of
Objectification Theory is to incorporate social, cultural and psychological factors to explain how sexual objectification may result in poorer mental health in women. The theory assumes that being a woman in a culture that objectifies women is, in itself, a risk factor for mental illness. Objectification is the process of compelling a person’s body, or part of their body, to stand in for their being. This can occur in a number of ways. Objectification can arise through interpersonal interactions, for example sexual harassment. Women can also be objectified in the media in two different ways. Firstly, there are representations of objectifying interpersonal experiences. These might be depicted in films or advertisements that portray women being treated as objects. The last, and most insidious, form of objectification is through first-person media representations. In these cases, the image of a woman puts us, the observer, in the position of objectifier. These images often depict body parts, for example the sexualised image of a woman’s breasts or buttocks. Sometimes a woman’s body is shown, with her head cut out of the image. In our culture these objectifying images and experiences are everywhere. In this environment, girls may begin to internalise this sexualised objectifying gaze.

The internalisation of this gaze is hypothesised to result in a type of body monitoring. The authors argue that it is the process of evaluating one’s external appearance, not the result of that evaluation that is important. According to the theory, whether a woman is happy with her appearance or not, the act of interrupting one’s thoughts to mentally scan the body for conformity to a sexualised norm is a damaging act that results in serious psychological sequelae: shame, anxiety, interference in peak motivational states, and divorce from awareness of internal bodily states.

We experience shame when we fail to conform to cultural expectations. Shame is associated not just with feelings of inadequacy, but also negative states associated with
public exposure. Shame as a result of comparing oneself to a cultural ideal is almost inevitable.

The authors of the theory also argue that anxiety can result from self-objectification. They theorise that there are two sources of anxiety: appearance anxiety and safety anxiety. Women are judged on their appearance and are simultaneously unable to predict when it will happen. This leads to anxiety about the conformity of one’s appearance to the ideal. Similarly, our culture of victim-blaming in cases of violence against women leads to women monitoring their own safety and experiencing anxiety about the responsibility to keep oneself safe.

Peak motivational states refers to situations in which we are wholly engrossed in an activity, unselfconscious and single-minded. These states are thought to contribute to wellbeing and promote positive mental health. However, women’s attention is often interrupted by their need to monitor and evaluate their appearance. Similarly, women who are high self-objectifiers may be unable to recognise internal bodily states, such as hunger and sexual arousal due to the attentional resources required for external monitoring.

Through these mechanisms of shame, anxiety, interference in peak motivational states and alienation from internal experience, the authors propose the development of depression, disordered eating and sexual dysfunction. Self-objectification can be seen as a variable of individual difference. However, the authors of Objectification Theory argue that across the population negative results of self-objectification are inevitable.

The literature around self-objectification and depression is reviewed extensively in paper 3.
2 The thesis

2.1 Aims

The primary aims of this work are to determine what factors influence genital satisfaction and openness to labiaplasty – in particular the role of self-objectification and mental health indicators – and to investigate the validity of Objectification Theory with regard to its predictions around mental health. Given the paucity of empirical research in this field, the work described in this thesis was largely exploratory. It was particularly important in designing the program of research to review the historical and cultural contexts in which these phenomena occur, to establish the current state of genital satisfaction and openness to labiaplasty, and to identify potential predictors of genital satisfaction and openness to labiaplasty for future research. In particular I wished to address the following questions:

1. Is the Porn Thesis a realistic portrayal of the complexities of genital cosmetic surgery?
2. What are the historical antecedents of labial disgust?
3. What are our modern cultural manifestations of labial disgust?
4. What is the role of variables of individual difference in genital satisfaction and openness to labiaplasty?
5. What is the role of pornography in genital satisfaction and openness to labiaplasty?
6. Is Objectification Theory a useful model in the understanding of genital satisfaction?
7. Are the predictions of Objectification Theory supported by the evidence?
8. What is the role of self-objectification in genital satisfaction and openness to labiaplasty?

9. What is the role of self-objectification in mental wellbeing?

2.2 An overview of thesis and its findings

This thesis comprises five studies to investigate the above aims. Here we provide a brief summary of the five papers that describe the findings from each of the studies. The latter provides a framework for the integrated discussion of the findings across papers which follows in Section 2.3.

Although it is typically assumed that labial disgust is a new phenomenon, we determined that an historical review could help to determine when it arose. Accordingly, Paper 1 (Nurka, Camille & Jones, Bethany (2013) Labiaplasty, Race and the Colonial Imagination. Australian Feminist Studies. 28: 78, 417-442) comprised a review of the historical and cultural bases of labial disgust: an essential step in understanding the contemporary cultural milieu in which cosmetic labiaplasty has burgeoned. The paper used historical and contemporary texts to explore conceptualisations of the labia minora. In this review we argued that far from being a recent phenomenon, our cultural disgust of labia has deep roots in our colonial past. Studies of genital morphology in African populations, particularly the ‘Hottentot tablier’ led ethnographers to conclude that African women were less than human. Women of colour were seen as animalistic in both vulvar morphology and sexual behaviour. Last century, this purported link between animality and labia was used as a eugenic justification to sterilise women who displayed undesirable sexual behaviour such as prostitution, masturbation or high libido. More recently, the legal implications of displaying images of labia minora in Australian print publications mean that editors are not able to print such images for fear
of prosecution under obscenity laws, or the reclassification of their publication to restrict its distribution, making the labia the only body part that is obscene by its existence. By tracing the history of the labia through our cultural past, we concluded that labiaplasty and the existence of idealised small labia are both symptomatic of a broader cultural disgust of the labia minora. Whereas most have argued that pornography is responsible for labial disgust, we propose that the causality may well lie the other way, ie cultural disgust of the labia minora is a contributor to labial minimisation in pornography.

In order to investigate the alleged link between pornography and genital satisfaction, we conducted two studies. The first was an exploratory study (Vulvatalk), of which Paper 2 (Jones, Bethany and Nurka, Camille (in press) Labiaplasty and pornography: a preliminary investigation. Porn Studies, 2:1, 62-75) present results from the primary analysis. This study comprised an anonymous online survey investigating the relationship between frequency of pornography consumption, genital satisfaction, openness to labiaplasty, and a range of sociodemographic variables. Based on a multivariate analysis, we concluded that the Porn Thesis model did not provide good fit for the data with regard to genital satisfaction, with only 4% of variance in genital satisfaction explained by this model. The endorsement rate for openness to labiaplasty was so low that we were unable to conduct a multivariate analysis of the data. Univariate analyses yielded evidence of only a weak relationship between pornography and openness to labiaplasty. A qualitative analysis of long-answer data in this study (not included in the paper) indicated with women who were high in genital dissatisfaction were likely to compare themselves to earlier versions of their own bodies, rather than comparisons to others. As the variables of interest in this study did not have a relationship with genital satisfaction, we observed that Objectification Theory may be a
useful tool in understanding women’s relationships with their bodies with respect to genital satisfaction.

Objectification Theory was proposed relatively recently in 1997. While there has been a moderate amount of research on self-objectification, the literature had not previously been subjected to systematic review. Accordingly Paper 3 (Jones, Bethany and Griffiths, Kathleen (2015) Self-objectification and depression: an integrative systematic review. Journal of Affective Disorders, 171, 22-32) comprised a systematic review investigating the relationship between self-objectification and depression. We found that the model proposed by Objectification Theory was well supported in the literature for adolescents and women. However, there were insufficient data to determine if the model applied to men. There were some significant shortcomings in the studies, namely that they were almost exclusively cross-sectional, and that they largely excluded known risk factors for depression. We concluded that Objectification Theory was likely to be a useful modifiable predictor of depression, particularly in adolescence.

However, it was a limitation of the extant literature that many of the studies failed to control for common risk factors when investigating the role of self-objectification in depression. Therefore we conducted a study designed to investigate the relationships between some common risk factors for mental health issues, self-objectification, depression and disordered eating. Paper 4 (Jones, Bethany A, Griffiths, Kathleen M & Bizumic, Boris (in preparation) A test of Objectification Theory including mental health indicators) described the results of two analyses. The first investigated the role of self-objectification as a unique predictor for depressive symptomatology in a model that first included anxiety, wellbeing, resilience, self-esteem, personal and familial mental health history and gender. The second analysis used disordered eating as the outcome variable. The study employed an anonymous online survey comprising a number of standardised
instruments and several bespoke measures that assessed pornography consumption and demographics. We found that Objectification Theory was not an independent predictor of depression. However, it was an independent predictor of disordered eating. Based on the review described in paper 3, it is possible that self-objectification is applicable only in adolescence and hence was not documented in this study which involved only adults.

Lastly, as a result of the Vulvata lk study (Paper 2) we designed a second study to investigate the role of pornography consumption and self-objectification in genital satisfaction. The survey study (VTII) was described in Paper 5 (Jones, Bethany A, Griffiths, Kathleen M and Bizumic, Boris (in preparation) The role of pornography and mental health indicators in genital satisfaction in a community sample of women). In particular, we modelled the relative contribution of a range of risk factors on genital satisfaction. Multivariate analysis identified five significant predictors of genital satisfaction: age, conservatism, self-objectification, resilience and sexist events. The strongest predictors of genital satisfaction were conservatism and self-objectification. We also investigated if sexual partners of women had a preference for the vulvar appearance of their female partners. We found no relationship between vulvar preference and pornography consumption suggesting that pornography is unlikely to influence genital satisfaction. However, it was concluded that self-objectification may be a predictor of major practical significance as it is the only variable that is modifiable. This has important implications for population health initiatives and policy makers.

2.3 An integrated discussion of the findings
As detailed in Section 2.1 this thesis sought to investigate seven aims. Below, I briefly
discuss the findings with respect to each of these aims.

Is the Porn Thesis a realistic portrayal of the complexities of genital cosmetic
surgery?

Through both the pilot Vulvatalk study and the VTII follow-up study we have attempted
to investigate this central question. The initial modelling from Vulvatalk included only
basic demographic information and pornography consumption, consistent with the Porn
Thesis. However, this model explained only 4% of the variance in genital satisfaction.
We concluded that the Porn Thesis was not a good representation of genital satisfaction.
Clearly, other factors that had not been measured must influence genital satisfaction.
However, we did find that women who did not consume pornography were less likely to
endorse labiaplasty. Although this was only a weak effect, it was statistically
significant. It is possible that pornography has some influence on openness to
labiaplasty independent of genital satisfaction, but it is also possible that personality
factors and other variables of individual difference might influence both these variables.
For example, a woman who is comfortable with her body and sexuality, and open to
new experiences may be more likely to consume pornography, and more likely to
consider labiaplasty should she become dissatisfied with her genitals. As Vulvatalk was
primarily designed as a qualitative study, we followed up this study with a more
thorough quantitative survey employing validated instruments.

In VTII, we included validated instruments to measure genital satisfaction. Again, the
findings did not support the Porn Thesis. In fact, pornography consumption was not a
significant predictor of genital satisfaction. We did, however, find other explanatory
factors, including conservatism and self-objectification.
This is an important finding, as we are living in an increasingly objectifying environment. Any increases in labiaplasty may well be attributable to self-objectification, rather than pornography consumption. While it is true that pornography is objectifying, it is likely that by far the more damaging material is that which is available to girls throughout the lifespan such as advertising, films and television. By the age at which many girls will be experiencing pornography for the first time, self-objectification may already be at its peak (Impett, Henson, Breines, Schooler, & Tolman, 2011).

Additionally, the lack of relationship between pornography consumption and vulvar preference casts doubt on the alternative theory that labial dissatisfaction and labiaplasty is being driven by partner comments. The comments of those that expressed a vulvar preference did not overwhelmingly comply with the pornographic ideal, which is consistent with recent work (Horrocks, Iyer, Askern, Becuzzi, Vangaveti, Rane, 2015). Although further research is warranted, the data clearly provided no support for the Porn Thesis.

**What are the historical antecedents of labial disgust?**

The Porn Thesis posits that labial disgust is a result of pornographic aesthetic conventions. Indeed authors expressly state that the aesthetic of minimised labia minora is new, and caused by pornography (Barbara et al., 2015; McDougall, 2013). However, we have determined that labial disgust precedes modern pornographic aesthetics by some centuries. Early ethnographers who were interested in the labial morphology of African women attributed their long labia to their animalistic natures, and their supposed prurience to their long labia. Later theorists built on this work with eugenic
models of sterilisation for women with elongated labia, due to their supposed lack of purity. Eugenicists claimed that women with elongated labia were biologically predisposed to undesirable behaviour such as masturbation or prostitution. The narratives of whiteness and hygiene that surround the promotion of labiaplasty today are a direct reflection of these earlier theories. The ‘pornographic’ ideal is a recent manifestation of a centuries-long antagonistic relationship whereby the labia minora are positioned as disgusting, dirty, animalistic and unchaste.

What are our modern cultural manifestations of labial disgust?

The labia minora is unique in the human body as being the only part that is deemed obscene by its existence. We can see this disgust of the labia minora in our legal system which equates any visual depiction of the labia minora as obscene (Drysdale, 2010). This is in contrast to other body parts, where the context is important. The flaccid penis on the cover of Honi Soit was not obscene given that it was not presented in a sexualised context (Ryan, Dias, Podesta-Diverio, & Watson, 2013). However, the vulvas that were proposed for the cover of the same publication were deemed obscene, even though they were also presented without sexualised context (“The Magazine Cover Deemed to Vulgar and Indecent to Publish (NSFW),”). This leads to a general absence of the labia in our culture. It is taboo, and therefore many women are not aware of what labia look like. What we have termed ‘The Invisible Vulva’ is a direct result of labial disgust in our culture that suppresses images of vulvas, in particular the labia minora, as obscene regardless of context.

Similarly, pornographic conventions, shaped in part by obscenity laws are weighted towards minimised labia minora. There are pornographic performers with large labia, some of whom are very prominent in the field. It may be reasonable to assume then,
that the consumers of pornography have a wide variety of tastes and that the conventions for minimised labia are not necessarily consumer-driven.

Lastly, the practice of cosmetic labiaplasty is another manifestation of labial disgust. Since the early days of gynaecology, labia have been classified as ‘abnormal’ or ‘deviant’ if they did not fit into a single one of four categories of labia (Ploss, Bartels, & Bartels, 1965). This practice continues today. Women with elongated labia are considered by many cosmetic surgeons to be deviant or abnormal (Embarrassing Bodies, 2013). In fact, while women seeking labiaplasty have larger labia than those who do not (Murariu et al., 2009), the labial size of women seeking labiaplasty is not generally abnormal (Rogers, 2014). It is not the biology that is at fault, but the classification of normal anatomy as deviant. This is a direct manifestation of labial disgust.

**What is the role of variables of individual difference in genital satisfaction and openness to labiaplasty?**

We found that in variables of individual difference were strong predictors of genital satisfaction. As noted above, we were unable to investigate this issue with regard to openness to labiaplasty, as the data were not suitable for multivariate analysis.

Conservatism was the strongest predictor of genital dissatisfaction in this sample. It may be that conservative women are more likely to subscribe to standard cultural beauty ideals (Crandall & Biernat, 1990). However, further investigation into this multidimensional variable is warranted.

Self-objectification was also a strong predictor of genital satisfaction. This is consistent with our earlier finding that women are comparing themselves to earlier iterations of their bodies, rather than to an external ideal: that is, objectifying material does not
typically include graphic depictions of the vulva. Further investigation into the effect of objectifying material and states on genital satisfaction may be conducted experimentally.

Resilience is, in part, the ability to overcome and thrive in the face of change (Connor & Davidson, 2003). In our preliminary work, we found change was an important concept for women when contemplating their satisfaction with their genitals. This was echoed in the significance of age: older women were more satisfied with their genitals indicating that perhaps they had developed psychological strategies to incorporate their changing form into their self-image without the need for surgical intervention. However, it is also possible that older women have simply had fewer objectifying experiences due to the relatively recent acceleration of such material in our culture.

Sexist events were also a significant predictor of genital satisfaction. Like self-objectification, this variable does not include an obvious link to genital satisfaction or protective factors. However, Objectification Theory states that objectifying interpersonal experiences, as well as media, can lead to self-objectification. Therefore it is possible that sexist events act as a de facto measure of self-objectification.

**What is the role of pornography in genital satisfaction and openness to labiaplasty?**

We found no role for pornography in genital satisfaction and openness to labiaplasty. However, in this research we have measured only frequency of pornography consumption. It is possible that different pornographic content or delivery modes may influence genital satisfaction, perhaps in an interaction with frequency of consumption. For example, frequent consumers of print soft pornography (with its erased labia minora) may experience different effects to those consumers watching amateur internet
pornography (with a wide range of body types). Further investigation is required to answer these questions.

Unfortunately, due to low frequency endorsement of labiaplasty in both the pilot and main study, we were unable to investigate the role of pornography as a predictor for openness to labiaplasty in the context of other predictors. While it is unlikely in the extreme that anyone would seek labiaplasty unless they were dissatisfied with their vulva, it is possible that pornography may differentiate between those who are dissatisfied and seek surgery, and those who do not. Future research focusing on this population is required to investigate these questions more fully.

Is Objectification Theory a useful model in the understanding of genital satisfaction?

We proposed the application of Objectification Theory to this field, as it addresses the impact of sexually objectifying material on the individual. Unlike the Porn Thesis, Objectification Theory does not limit itself to pornography, but includes all objectifying experiences and media. This is an important distinction, as girls are subjected to objectifying media and experiences long before they consume pornography. Additionally, as a robust psychological theory, Objectification Theory has testable predictions. Again, this is in contrast to the Porn Thesis, or the concept of pornification which are inherently untestable. We found that Objectification Theory is applicable in this field and should be included in future models of genital satisfaction and openness to labiaplasty.

Are the predictions of Objectification Theory supported by the evidence?

Our systematic review found that largely the body of work around self-objectification and depression is consistent with the prediction of the Theory. There were a number of
significant limitations in the literature. Firstly, as the studies were mostly cross-sectional there can be no assumptions of causality. Secondly, the exclusion of common risk factors might have inflated the relationship between self-objectification and depression. However, based on this early work it appears that Objectification Theory is supported by the evidence.

**What is the role of self-objectification in genital satisfaction and openness to labiaplasty?**

As above we were unable to explicitly examine the role of self-objectification in openness to labiaplasty due to low rates of endorsement. However, self-objectification may be the only modifiable factor influencing genital satisfaction. The other predictors in the model: age; conservatism; resilience and sexist events are not easily amenable to change. This central finding of the current body of work points to important pathways for interventions and future research.

Currently interventions are being designed and implemented (such as the Labia Library) that are not based on evidence, but rather on the Porn Thesis. The purpose of the Labia Library is to educate women about the range of variation in vulvar morphology. This is a direct result of the assertion of the Porn Thesis that women are exposed to modified vulvas in pornography and become dissatisfied after comparing themselves. There is reason to doubt whether such interventions are likely to be effective, given that exposure to a range of bodily variance does not quell the desire for other cosmetic surgery procedures. However, self-objectification has a role in the treatment of eating disorders and has clinical utility in that context. The expansion of such programs to population-level interventions at school age could potentially result in reduced levels of genital dissatisfaction as well as reduced depression, anxiety, body dissatisfaction and disordered eating.
The model that we fitted to the data explained roughly 30% of the variance in genital satisfaction. It is therefore possible that other modifiable factors, as yet unidentified, may play an important role. Further research in this area is required to identify potential predictors and to replicate the findings around self-objectification.

**What is the role of self-objectification in mental wellbeing?**

We found support for Objectification Theory with regard to disordered eating outcomes, but not for depression (VTII). Our systematic review found that it was likely that self-objectification was a predictor of depression, but that many studies had failed to include other common predictors in investigating the relationship between self-objectification and depression. Our study included some of those predictors, and self-objectification was subsequently excluded from the model. However, our review also found that self-objectification may be particularly significant for adolescents. As such, further research focusing on that age group may clarify the relationships between these constructs.

The remainder of the thesis consists of the accepted version of Papers 1, 2 and 3 and the version that will be submitted for Papers 4 and 5. Consistent with guidelines for a thesis by publication, each paper is preceded by a foreword that contextualises the work within the wider framework of the thesis. Lastly, a concluding chapter draws the work together.
References


Foreword

The question at the heart of this thesis is: does the Porn Thesis represent a realistic model of genital satisfaction and labiaplasty. One of the major flaws in the Porn Thesis is that it ignores the historical antecedents of our present-day labial disgust. However, these antecedents are very important in establishing the source of labial disgust in our culture. By tracing these pathways through history, we hoped to be able to offer an alternative explanation for the aetiology of cosmetic labiaplasty that is grounded in evidence. Of no less importance is the recognition of the suffering of women as a result of these policies: suffering that is minimised or ignored when these narratives are overlooked. We believe it is important to recognise our historical approaches to the labia in order to truly understand the place of cosmetic labiaplasty in our modern culture.
Abstract

This article seeks to interrogate the cultural meaning of cosmetic labiaplasty surgery (CLS) in the Western context through a historical examination of the symbolic function of the labia in relation to the construction of racial difference in early colonial race science discourse. It seeks to think through CLS as materially invested in a transnational masculinist imperial encounter with indigenous women from the Cape of Good Hope, who were identified in the race sciences of the eighteenth to nineteenth centuries as ‘Hottentots’ (and sometimes ‘Bushwomen’). We suggest that the production of desire in contemporary CLS practice and discourse has its roots in ‘the deep cultural fear of the Black figured in the psychic trembling of Western sexuality’ (Bhabha in Fanon 1967, x). The fear of abnormality so strikingly invoked in the medical literature and contemporary accounts of women’s desire for cosmetic labiaplasty surgery appears as a displacement of racial abjection onto the genitals and a production of the female body as the border object upon which the desire for whiteness is transcribed. We identify two interlocking features of this production of white desire: The rejection of the animal body and the correction of sexual deviancy, both of which are articulated through race, specifically the racialised ‘Hottentot’ bodies conjured up by the white, colonial imagination.
This article seeks to interrogate the production of racial difference as one of the
key historical conditions informing the cultural meaning of contemporary cosmetic
labiaplasty surgery (CLS) trends in Western nations, especially in the US, UK and
Australia. We examine the symbolic function of the labia in historical context to
suggest that the contemporary intolerance for protruding labial lips – a pathological
condition implied in the descriptive term ‘hypertrophy’ – has resonance in the colonial
past. The concept of hypertrophied or enlarged labia minora as a medical curiosity dates
back as far as the seventeenth century, as European scientists became fascinated by the
elongated ‘nymphae’ of African women, notoriously dubbed the ‘Hottentot apron’ (or
in the French, the ‘Hottentot tablier’). In one of the earliest known accounts, Dutch
physician and geographer Olfert Dapper wrote in 1668 that ‘the lining of the body
appears to be loose, so that in certain places part of it dangles out’ (Schapera and
Farrington 2001, 45).
‘Hypertrophy’, as it is used in clinical literature today, retains its connection to
sexual pathology and has also migrated to the popular consciousness as the reading and
viewing public more enthusiastically engages with medical knowledge. The increasing
public awareness of the condition of ‘labial hypertrophy’ is likely attributable to the
spread of internet communication and mass media coverage of CLS procedures.
Surgeon advertisements, blogs about surgery experiences, and websites of popular
medical reality TV shows like Embarrassing Bodies have all contributed to making
‘labial hypertrophy’ a recognisable – and curable – disorder. Critics also cite the
normalisation of cosmetic surgery, access to internet porn, greater media coverage, and
more accessible advertising as significant factors in bringing CLS to public attention
(Braun 2005; Braun 2010; Braun and Tiefer 2009; Newton 2012). According to Tiefer,
FGCS first entered recent popular consciousness in 1998 ‘when two Los Angeles
surgeons, Gary Alter and David Matlock, publicized procedures […] for “beautifying”
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the vulva and “increasing sexual responsiveness”’ (2008, 467; also see Braun 2010, 1394). While the medical definition of ‘hypertrophy’ is more descriptive than diagnostic, the term has often been used as a de facto diagnosis, particularly in popular media and promotional websites. The term ‘hypertrophy’ not only designates a pathological sexuality, but also houses an affective association with disgust and shame. This current linkage of ‘hypertrophic’ labia with ill health, deviance and sexual shame, we suggest, is informed, in large part, by the discourses of early race science, which gave labial hypertrophy its notorious association with black femininity. Indeed, Braun and Tiefer note that the techniques of genital measurement developed by colonial race science ‘to determine pathological difference, inappropriate feminine embodiment and (hyper) sexuality’ among devalued, criminalised and subjugated groups of women are the very same approaches evident in contemporary diagnostic discourse which reiterates labial ‘hypertrophy’ as excessive and deviant (2009, n.p.). We agree and seek to expand the theme of deviance by further elaborating upon the historical precedence briefly outlined by Braun and Tiefer.

We theorise contemporary CLS as the genealogical product of a ‘transnational’ masculinist imperial encounter with indigenous Khoi women from the Cape of Good Hope, named ‘Hottentots’ by Dutch colonists, a nomenclature that was subsequently taken up by European scientists and often, though not always, used interchangeably with ‘Bushman’ (Fausto-Sterling 1995, 22). We use ‘Hottentot’ as an umbrella term here because of the way in which the ‘Hottentot apron’ collapsed ethnic difference in order to signify a generalised black otherness, in opposition to the invisible norm that white genitals represent. We present a ‘transnational history’ of a phenomenon that cuts ‘across national boundaries’ (Tyrell 2009, 454) precisely because of its investment in the colonial sexual imaginary and the importance of aesthetic valuation of the female genitals to the construction and maintenance of racial hierarchies. Understanding the
significance of the ‘Hottentot’ labia in early colonial constructions of sexual and racial
difference is vital if we want to adequately historicise the cultural reasons behind the
phenomenon of CLS today. This indebtedness to the colonial imagination produces
CLS as ‘white’, where whiteness ‘corresponds to one place in racism as a system of
categorization and subject formation’ (Frankenberg 1999, 9). In this article, we speak of
the ‘colonial imagination’ as comprising anthropological, medical and photographic
accounts of the female ‘Hottentot’ body that draw a specific set of conclusions about the
black labia. This then informs the historical development of the medicalisation of labial
hypertrophy in Western science.

We acknowledge that there are practices of female genital modification (usually
referred to as ‘female genital mutilation’ or FGM) among non-Western communities
that may share Western assumptions about the importance of genital appearance in
achieving appropriate femininity. There is evidence of overlapping justifications for
genital modification, such as beautification, marriageability, desirability and the control
of female sexuality in general (Khau 2012; Morris 2006). Nevertheless, we see the need
to draw a clear distinction between labial excision among black, non-Western
communities and CLS in the Western context because of the conspicuous presence of
the black other in Western constructions of the ‘normal’ vulva. Moreover, in suggesting
that Western CLS draws on racist representations indebted to colonial race science, we
are not then assuming that all CLS procedures in the West are undergone by women
who identify as white. We contend instead that CLS is a practice, and thus a form of
knowledge, that is structured by racialised representations of the abnormal labia. The
desire for CLS exists as part of a colonial psychic interrelation that produces white
subjects – in the sense that CLS subjectifies women to its symbolic demands by
bringing ‘whiteness’ as a relation between disgusting and normal into being – and the
female body is the border object upon which this desire for whiteness is transcribed.
This is less a question of the agency of any particular individual and her reasons for wanting CLS, and more an exploration of her subjective positioning within a structure of desire informed by the historical present. We thus ‘trace early colonial and racist discourses’ that emerged in the European imperial encounter with the women of the Cape of Good Hope to their ‘unfolding into the present’ as ‘a “repertoire” of images or tropes’ (Frankenberg 1999, 11) that inflect the cultural psychic investment in the labia as signifiers of intolerable difference and as the somatic site of a white conception of feminine normality.

Specifically, we argue that there are two interlocking features of the contemporary desire for labiaplasty in the Western context: The rejection of the animal body and the correction of sexual deviancy, both of which are articulated through race. In what follows, we present the case for ‘hypertrophy’ as a signifier of corporeal excess and shame, in opposition to the clean and corporeally contained labia minora, a taxonomy that we trace back to the early colonial period and the fetishisation of the black labia. We then go on to explain the way in which the categories and methods for uncovering signs of racial deviancy through sex in the race sciences developed over time to become concerned with heterosexual deviancy. By the early twentieth century, the scientific obsession with measurement of the labia had moved away from race to concentrate more firmly on sexuality. In this way, race, sex, and sexuality were all integrally connected through the persistent taxonomy of (labial) normality and aberrance.
A Note about the Images Used in This Article

We are aware of the ethical risk of reproducing a racist gaze through the inclusion of racially offensive images taken of African women by white anthropologists. As white researchers, we are profoundly aware of our phenomenological and temporal distance from the women presented in the images we show here. We have no desire to reinvigorate the white gaze turned upon exoticised black women; however, we argue that in order for the reader to adequately appreciate the extraordinary rhetorical power of white colonial depictions of aberrant black labia, it is necessary to display those images that attest to its symbolic construction. In doing so, we hope to defamiliarise these images to expose and question white constructions of sexualised black female identity, rather than to give them license. We recognise that the women in these photographs are not agents of their own image. Who these women were, both to themselves and to the men and women who knew them intimately, is not accessible in these photographs. Readers must bear in mind that this is also the case regarding our discussion of Khoi woman Sarah Bartmann (also known as Saartjie Baartman) – here, we are careful to distinguish the image from the real person. We know that while she was alive, Bartmann refused to let her genitals be inspected by inquisitive European anthropologists Georges Cuvier and Henri de Blainville and their small team of artists (Fausto-Sterling 1995, 32–33; Crais and Scully 2009, 135). Nevertheless, this article is concerned with the representations made (without her permission) of her genitals in order to demonstrate the powerful legacy of the colonial medical gaze on contemporary aesthetic surgery discourse: the language of a lingering racialised Manichaeism, used both by women who choose to undergo surgery and surgeons themselves.
Labiaplasty and the Colonial Imagination

We see it as significant that all the cosmetic surgery websites from Australia that we looked at featured images of white bodies either nude with hands obscuring the genitals or pictured in white underwear. Whiteness as a visual theme was all-pervasive—from the colour of bodies and clothing to the pale pink tint of genital skin and the idealised labia minora ‘neatly’ tucked away behind the labia majora, hidden from sight. The ‘clean’ and ‘tidy’ vulva has a privileged currency in contemporary accounts of ideal feminine embodiment (Crouch et al. 2011; Green 2005). As one message board respondent on makemeheal.com said of her labiaplasty procedure: ‘I’m pretty happy with my results! I can have sex no problem now and keeping my labia clean is 100x easier than before!’ (soraji 2011). Another woman wrote on experienceproject.com that her dissatisfaction with her genitals made her feel less feminine: ‘Instead of looking neat and tidy, “like a girl”, I always had labia that “hung out” of my labia majora’ (pinkglitter 2012). Cosmetic surgeons deploy the rhetoric of tidiness to sell the procedure, which they claim provides ‘a neater and more youthful look’ (New Reflections Plastic Surgery 2008). Enlarged labia is also promoted by surgeons as responsible for ‘difficulty with hygiene’ (Labiaplasty Surgery 2011). One website explained, ‘Excessive labia minora can be uncomfortable, take extra time and attention to maintain proper hygiene, or lead to poor hygiene’ (A Beau Jeu Plastic Surgery 2006–2012).

In the British reality TV show Embarrassing Bodies, medical practitioners assessing patients for signs of ‘labial hypertrophy’ consistently deploy the language of excess and redundancy to describe labial lips. Cosmetic surgeon Angelica Kavouni identified in one patient ‘a lot of excess tissue’, suggesting that there was ‘a fair amount of skin protruding’ that required surgical intervention (Embarrassing Bodies 2013a, our
(italics). In another episode, Dr Pixie McKenna advised her patient that although her labia looked healthy, from a gynaecological point of view, she did have ‘quite a lot of excess skin’, that her labia were ‘sticking right down’, and that ‘normally you wouldn’t get that appearance’ (Embarrassing Bodies 2013b, our italics). Dr Pixie McKenna concludes with this appraisal: ‘What you’ve got is a normal variant … I think we could be able to help you with this … I’m not thinking a gynaecologist here, I’m thinking more a cosmetic surgeon. They can do a fairly minor procedure and remove that excess skin for you’ (Embarrassing Bodies 2013b, our italics). While some medical specialists may pay lip service to normality, what they are in fact promoting is the idea that protruding inner labia are excessive and abnormal; they signify a failure of corporeal containment.

The imagery of white bodies in white adornments, and the prevailing discourses of aesthetic excess and dirtiness do not simply appear out of nowhere. Cosmetic surgery industry advertising has created a revised set of visual conventions and discourses that plumb the vast psychic repository of the white colonial imaginary in which ‘hypertrophic’ labia figure most conspicuously. We argue that it is in colonial race science discourse that the presence of labial disgust is most pronounced, and provides a powerful imaginary legacy that haunts us still. For us, the body image is acquired with the development of the social ego, and a complex biocultural process by which individual bodies attain legibility. Our bodies, and those of others, thus become intelligible through available symbolic codes produced within the social histories and contexts in which we are situated and by which we cannot help but be shaped.

The medical construction of elongated labia as an anomalous physical condition attained powerful cultural currency particularly in the eighteenth to nineteenth centuries – a period in which white anthropologists became obsessed with the size and shape of
the labia of African women, especially indigenous Khoi women from the Dutch colony of the Cape of Good Hope. The ‘Hottentot apron’ or ‘tablier’ attained a mythic status in colonial anthropology and the European popular consciousness, and became the chief descriptor for black female sexuality in general. Historical accounts of labial hypertrophy figure prominently in the colonial racial science narratives of the eighteenth to nineteenth centuries, with anthropological writers such as Captain Cook, Johann Freidrich Blumenbach, Henri de Blainville and Georges Cuvier publicising their observations of ‘Hottentot’ genitalia.

The most famous subject of such illustrations was Sarah Bartmann, a Khoi woman who was born in the Cape of Good Hope. Settled by the Dutch in 1652, the Cape of Good Hope became a convenient station for European colonialists and traders seeking passage to the East Indies; its inhabitants (labelled ‘Hottentots’ by Europeans) became readily available sources of slave labour and objects of European curiosity. Bartmann was first taken in by a Boer family as servant girl, and later brought to London in 1810 to be exhibited as a circus attraction (Fausto-Sterling 1995, 28). She came to be widely known in Europe as the ‘Hottentot Venus’ and ‘served as Europe’s symbol of African sexuality’ (Wiegman 1995, 58). She was put on display for the European public, but also for men of science who were given the opportunity to ‘examine’ her, until her death in 1815, upon which her body was eagerly seized for post-mortem examination by Cuvier, the results of which were published in 1817 (Gilman 1985, 213). These encounters would produce Bartmann’s body as one of the most visible and enduring examples of black femininity in the history of white, colonial ethnography. Both de Blainville and Cuvier each documented Bartmann’s physical characteristics in great detail, paying special attention to her buttocks and ‘elongated’ labia minora. Their studies of Bartmann were highly influential texts of their time that sought to prove, through the ‘scientific’ method of measurement and taxonomy, the
phylogenetic difference between races. In his report on Bartmann, published in 1816, de Blainville aimed, firstly, to provide a ‘detailed comparison’ of Bartmann with ‘the lowest race of humans, the Negro race, and with the highest race of monkeys, the orangutan’; and secondly, to produce ‘the most complete account possible of the anomaly of her reproductive organs’ (de Blainville, cited in Fausto-Sterling 1995, 33). They also aimed to settle disputes over the nature of the Hottentot apron. For instance, traveller Jacques Henri Bernadin had claimed in 1733 that it was an invention (Lyons and Lyons 2004, 32). Debate had also raged around whether the tablier was a foreign physiological structure specific to African women or simply an enlargement of the ‘ordinary genitalia’ (Gould 1985, locations 3949–3951). This controversy led Cuvier to proclaim: ‘There is nothing more famous in natural history than the tablier of Hottentots, and, at the same time, no feature has been the object of so many arguments’ (cited in Gordon 1992, 187). He clarified that the tablier was indeed an enlargement of the labia minora (Gould 1985, locations 3955–3958).

Nearly half a century prior to Cuvier’s highly publicised report, Captain Cook, had sought to resolve speculation on the existence of the ‘Hottentot apron’ upon his expedition to Cape Hope in 1771, making use of animal imagery in his description of the labia:

We were very desirous to determine the great question among natural historians whether the women of this country have or have not that fleshy flap or apron which has been called the Sinus pudoris, and what we learnt I shall relate. Many of the Dutch and Malays, who said they had received favours from Hottentot women, positively denied its existence; but a physician of the place declared that he had cured many hundreds of venereal complaints, and never saw one without two fleshy, or rather skinny
appendages, proceeding from the upper part of the labia, in appearance somewhat resembling the teats of a cow (Cook, cited in Gordon 1992, 186–7).

In their dissection of 1864, anatomists W. H. Flower and James Murie noted that the labia of the ‘Hottentot’ and ‘Bushmen’ races could be distinguished ‘at once from those of any of the ordinary varieties of the human species’ (C. W. D. 1867, 322), echoing de Blainville’s doubts as to whether Hottentot women occupied the limit of the species, closer to the animal than the human. They too deployed animal simile, comparing the labia to ‘strips of sheep-skin’ (C. W. D. 1867, 322).

The white, colonial understanding of the female ‘Hottentot’ genitals was that they were both animal and anomalous; the labia functioned as the primary signifier for deviance from, not only civilised humanity, but also femininity. Comparisons of Hottentot to animal, but especially simian, bodies are rife in early colonial accounts, which position the Khoi as the bestial intermediary between the animal and the human (Fausto-Sterling 1995, 36). John Ovington, Chaplain of the ship Benjamin of the East India Company, wrote in 1689 that ‘if there is any medium between a Rational Animal and a Beast, the Hotantot lays fairest claim to the Species’ (cited in Hodgen 1964, 422), and Robyn Wiegman records that in 1774, historian Edward Long wrote: ‘Ludicrous as the opinion may seem, I do not think that an orang-utan husband would be any dishonour to the Hottentot female’ (cited in Wiegman 1995, 57).

The authors of *Anomalies and Curiosities of Medicine* (1901) make explicit the racial connection between labia size and evolutionary development, and suggest that it is because of the development of the ‘Hottentot’ labia that a phylogenetic link to the orangutan can be assumed:
Some of the lower African races have been distinguished by the deficiency in development of the labia majora, mons veneris, and genital hair. In this respect they present an approximation to the genitals of the anthropoid apes, among whom the orang-outang alone show any tendency to formation of the labia majora. The labial appendages of the Hottentot female have been celebrated for many years. Blumenbach and others of the earlier travelers found that the apron-like appearance of the genitals of the Hottentot women was due to abnormal hypertrophy of the labia and nymphae (Gould and Pyle 1997 [1901], 306–7).

Zoologist Raphael Blanchard (1857–1919) also hypothesised that labial hypertrophy was an indication of primitive development and declared a ‘remarkable resemblance between the vulva of the female chimpanzee and the local structure of the Bushwomen’ (Ploss, Bartels and Bartels 1965, 135), as did influential criminologist and anthropologist Cesare Lombroso who wrote (with co-author and son-in-law William Ferrero) in 1893:

Gratiolet and Alix (Recherches sur l’anatomie des Troglodytes Aubryi, 1886) demonstrated that in chimpanzees the outer labia are atrophied while the inner labia are highly developed. Hoffmann and Bischoff noted that in anthropoid monkeys the outer labia and mound of Venus are almost absent, while the clitoris is always highly developed and fluted on its inner surface. Moreover, the inner labia are highly developed, especially in the chimpanzee, less so in the other three species of monkey. Most of these traits are shared by Bushmen women. Anomalies of the female genitals can also be found among Europeans, although less distinctly’ (Lombroso and Ferrero 2004 [1893], 53–55).

In 1927, renowned sexologist Havelock Ellis also noted a similarity between black female genitalia and that of apes: ‘It is highly probable that the nymphae, like the
clitoris, are congenitally more prominent in some of the lower human races, as they are also in the apes’ (2007 [1927], 122–123).

Descriptions of the ‘Hottentot apron’ can be found in both anthropological and sexological texts from the seventeenth century and onwards, and reproduced even into the mid-twentieth century. For instance, *Femina Libido Sexualis*, published in 1965, was an abridged version of German anthropologists Heinrich Ploss, Max Bartels and Paul Bartels’ widely read three-volume tome *Woman: An Historical, Gynaecological and Anthropological Compendium* (first published in German in 1885, with its eleventh edition published in 1927.). *Woman* sold very well and served as a popular and respected authority for ‘members of the medical profession, anthropologists, gynaecologists, and other men of science’ (Ashley-Montagu 1936, 169). By the time of its English translation in 1935, it had already become a ‘well established source book of information on the anthropology, gynecology and ethnology of women’ (JAMA 1936, 733). At a comparatively meagre 318 pages, *Femina Libido Sexualis* is based on the first 655-page volume of *Woman*, which provided an ‘eclectic’ sketch of ‘the general “organism of woman” in its anthropological, psychological, and aesthetic aspects, and on the racial and ethnographical characteristics of the female genitalia’ (BMJ 1936, 17). *Femina Libido Sexualis* contains detailed descriptions of female genital morphology organised by racial type, accompanied by images that are designed to illustrate pictorially racial and evolutionary difference. In *Femina*, Ploss, Bartels and Bartels explain that the ‘labia minora, or nymphae, are of great importance to the anthropologist’ because of racial variance, and they estimate the ‘average length’ to be three centimetres (1965, 112). They identify four types of labia (short, membranous, aleate and hypertrophic), with the second regarded as ‘normal’ and the others as ‘variations’. It is the ‘hypertrophic’ type, however, that is almost exclusively attributed to ‘African races’ (1965, 123), of which the Hottentot/Bushwoman is the prototypical
case. According to Ploss, Bartels and Bartels, the ‘inner lips or nymphae in women of the Bushfolk and Hottentots are extremely and conspicuously long and pendant’ (1965, 127). They cite the post-mortem examination performed by Flower and Murie as having uncovered a ‘defective’ labia majora, in comparison to that of European women, and ‘pendant flaps nearly 2 inches in length and very elastic, of so dark a red as to be almost black’ (1965, 128).

Discussion and illustrations of deviant vulval morphology is restricted to non-white races, and those that fail to conform to the ‘membranous’ (read: white) type are considered aesthetically displeasing. Ploss, Bartels and Bartels refer to ‘Japanese’ genitalia as ‘not aesthetically pleasing to European eyes, either in form or colour’ and refer the reader to an illustration that supposedly demonstrates the offensiveness of the organ in the ‘yellow races’ due to ‘the slightest possible development of the outer labia and a strong protuberance of the inner’ (1965, 122).

Figure 1: ‘According to E. v. Baelz, the external genitalia of the Japanese women (Fig. 133) are not aesthetically pleasing to European eyes, either in form or colour; and this is specially the case in the aristocratic type.’
Figure 2: ‘The illustration (Fig. 136) shows clearly the formation frequent among the yellow races, i.e., the slightest possible development of the outer labia and a strong protuberance of the inner.’

*Femina Libido Sexualis* is exemplary of what Schick (1999) calls ‘ethnopornography’ as the intersection of exotic erotica and sexological ethnography. The anthropological eye of the nineteenth century showed a fascination for the female nude, such that (female) nudity itself became an instrumental part of the Western epistemological gaze, and sexuality occupied a central role in ‘shaping the form of the anthropological discourse on and of the inhabitants of Southern Africa’ (Gordon 1992, 185). The ethnographic pictorial style allowed the pretence of looking at black women innocently, ‘outside of the conventions of image possession and voyeurism by which [the heterosexual masculine gaze] looked at feminine spectacle’ (Conor 2004, 203). In other words, the sexualising gaze could hide its ‘immoral’ desires behind the veneer of legitimate scientific inquiry.
The female nudes featured in ethnographic photography offered an exotic sexuality available for the white male gaze in the conflation of sexual and epistemological desire. The ethnographer’s desire to know the female body was inextricable from the desire to possess it sexually. Ploss, Bartels and Bartels’s Woman: An Historical, Gynaecological and Anthropological Compendium was ‘reissued several times with ever increasing numbers of pictures’ with each new edition ‘augmented by large numbers of often explicit illustrations’ (Schick 1999, 79–80). The nudes in Femina Libido Sexualis, like those in traditional art, are conventionalised according to a visual code that makes explicit the colonial distinction between ‘savage’, aberrant black female sexuality and ‘civilised’, white beauty. Where white women are staged in classical poses against scenic shots of mountains or forest, black women figure as ‘natives’ inhabiting the space in which they are photographed, or are presented as specimens of nature for scientific study (figs. 3, 4, 5, 6).
250. — Blonde European: urban dweller. (Photo, R. A. Giesecke.)
253.—European brunette: urban dweller. (Photo, R. A. Giesecke)
Figure 5
The labia minora are commonly depicted in the photographs in relation to their deviant, ‘hypertrophic’ form in the bodies of racial others, for example, in those of Japanese women and ‘Bushwomen’ (figs. 7, 8).
145. — Japanese woman with elongated nymphæ.
(After Stratz.)

Figure 7
The relative paucity, in *Femina Libido Sexualis*, of photographic images of white, adult labia is a literal inscription of the invisible norm. In fact, the book’s
illustration of the ‘normal’ (white) adult vulva is taken from a nude sketch originally used by German gynaecologist Carl Heinrich Stratz (fig. 9), who championed anthropometric analysis in defining female beauty (Hau 2003, 42).

![Figure 9](image)

It’s no surprise that Stratz came to the conclusion that white women were aesthetically superior. He also understood women’s central existential purpose to be the propagation of the (white) race – as opposed to men, whose duty was to themselves – and that this telos was embedded in the anatomical structure of the female body (Hau 2003, 69). Female beauty was thus an ‘expression of women’s essence as reproductive
creatures’ (Hau 2003, 70) and racially determined. Today, the labia minora again serve as a privileged marker of bodily difference, although it is not, in the tradition of Stratz, woman’s reproductive capacity that is deemed beautiful or considered the essence of femininity, rather the beautiful, feminine body is pre-pubescent and nulliparous.
The images above of nude, pre-pubertal girls are particularly disturbing, not just because of the evidently sexualised poses, but for the way in which race figures to distinguish the pre-pubertal vagina. While the white girl stands modestly, in a stylised pose with a pet in a basket hanging from her arm, signalling the child at play, the ‘Hottentot’ nude is arranged upon plush fur, seductively posed with her open vulva clearly visible, in a manner which mimics Western pornographic conventions.

The racialised standards of female beauty and normality faithfully reproduced in *Femina Libido Sexualis* furnish us with a historical sense of the symbolic value of the labia (and the sexed body in general) in ordering types of bodies. With very few exceptions, the only ‘normal’ labia minora with which we are supplied is rendered through scientific illustrations (and in the Stratz illustration they are completely obscured from view), yet labia minora classified as aberrant or of a racial type are made
visible in photographs of actual women, as well as through illustration. Hence, we see
that the role of photography in the anthropological text is crucial to the verification and
authorisation of racialised bodies. As Susan Sontag states, ‘Photographs furnish
evidence’ (Sontag 1971, 5); they appear to confirm that what we see in the image is a
direct translation of the real, a miniaturised slice of the world. Stratz’s sketch in Femina
Libido Sexualis euphemises the naked female body by transforming it into a nude.
Indeed, the romantic photographs of the Europeans and the exoticised beauty of the
‘Samoan woman’ emulate the conventions of the nude in art, whereas the photographs
of the ‘deviant’ women (shown in figs. 6, 7, 8) are stark in their attempt to portray a
refusal of artifice.

It is only with reference to this historical backdrop that it is possible to begin to
understand some of the reasons for why the genital zone (in particular the labia) is so
culturally significant in white, Western nations. The very definition of labial
hypertrophy as a condition cannot be separated from the racist discourses through which
it came to attain its meaning as excessive, bestial or ‘of nature’, and beyond the bounds
of that which was considered to be appropriate to the ‘normal’, white body.

Sarah Bartmann’s public body is strangely recapitulated metaphorically in
contemporary ‘before’ and ‘after’ photos of ‘successful’ labiaplasties, publicly available
on the internet (fig. 12)¹. What we have gleaned from Bartmann’s public display is that
‘the presentation of the exotic requires a definition of the normal’ (Fausto-Sterling
1995, 30), which is exactly what before-and-after photos are specifically designed to
produce. Braun and Tiefer affirm that with ‘the numerous before-and-after photos on

¹ The published version of this paper does not include Figure 12 as permission was not granted to include it. However, copyright restrictions require the accepted version of the paper to be included in this thesis and therefore the reference to Figure 12 remains.
surgeon websites or occasional clinical case reports of labiaplasty … we are expected to naturally agree that the “after” shot is an improvement on the “before” (2009, n.p.). What is most striking about these pictures is that the eye is drawn to the exotic, unsightly pre-surgery vagina, the abhorrence of which is visually attested through its opposition to the ‘normal’, neat vagina, with its invisible labia minora. There is a double comparison at work here; one between the abnormal and the normal (‘this looks nicer than that’), and the other between image and viewer (‘does mine look like that?’). It’s difficult not to be seduced by the alluring representation of difference offered up by the image, in the fascinated consumption of a disgusting other that mimics in eerie precision the scopic relationality between the exposed, consumable black female body and the invisible norm of a refined, modest, civilised white femininity. There are differences here though: while the invisible white vulva of the eighteenth and nineteenth centuries represented desexualised purity, the contemporary post-surgical vulva allows for sexual availability, and replaces sexual shame with confidence. The current emphasis on female sexual autonomy is an effect of modern feminism and in stark contrast to the expectations in prior centuries of female chastity; however, the fundamental emphasis upon the ‘hypertrophied’ labia as the site of abjection is contiguous. With the assistance of technological ‘progress’, the white vagina has ‘evolved’ to be even more compact and devoid of that which the white colonial imagination, a cultural imaginary that is with us still, represents as ‘animal’.

Hypertrophy and Sexual Deviancy

In the anthropological discourse of the eighteenth century, ‘[r]ace and gender as modes of discrimination were intimately linked’ (Gordon 1992, 191). With the rise of physiognomy and phrenology as legitimate sciences which participated in the vast...
amounts of data collection typical of the Linnean science, the cataloguing of abnormal, diseased, or criminal ‘types’, identified by facial and bodily features, began in earnest. These scientific tools would contribute to Western medical understandings of physiological difference and the regulation of female sexuality.

For instance, both Cesare Lombroso and fellow anthropologist Adrien Charpy, attributed to the prostitute an evolutionary atavism and moral deviance evidenced in her genitals, which were compared to those of ‘Hottentot’ women (Gilman 1985, 226–229). The lascivity of the prostitute was thus referred back to the black woman and vice versa. The Hottentot woman’s bestial positionality was frequently augmented by descriptions of her supposed concupiscence, explained through an analogic model; the larger the genitals, the stronger the desire. In 1819, natural philosopher J. J. Virey wrote that black female sexuality ‘is developed to a degree of lasciviousness unknown in our climate, for their sexual organs are much more developed than those of whites’ (cited in Gilman 1985, 212–213).

The explosion of physiognomic data collection in the seventeenth to nineteenth centuries was part of a broader project that positioned eugenics as the remedy for social ills. The idea was that such data could be deployed to identify and contain the spread of moral turpitude, as social character was thought to be genetically determined. This type of information collection was seen to be useful, on a national scale, in the management of sexually transmitted disease, especially syphilis, mental illness, procreation in marriage, and ‘racial hygiene’. ‘Racial hygiene’ refers to the eugenic project, which can be defined as the encouragement of reproduction in people who are deemed to be of more value than others, and the discouragement of the same in those considered morally, mentally or physically unfit. Within white Western societies, these were generally politically endorsed public policies that were most often directed at the
working class and non-whites. However, in her discussion of early birth control advocates, eugenics historian Jane Carey notes the intersection of race and class in eugenic rhetoric with regard to fears of racial degeneration within white populations (2012, 735–736).

At the turn of the twentieth century, with the emergence of prominent female advocates of birth control, such as Annie Besant, Margaret Sanger, and Marie Stopes, the eugenic focus shifted to marital happiness among white women (Carey 2012). Yet the ostensibly ‘feminist’ concept of reproductive freedom was based on older Malthusian notions of class welfare, where it was argued that contraception should be made available to working-class women who were thought to be overproductive, architects of their own poverty, and unhappy – which made for an unhappy nation. Working-class women were thought to be, in essence, less ‘fit’ to reproduce (Carey 2012). The support for female reproductive autonomy, as well as marital happiness, was thus coterminous with the betterment of the white race and the belief that non-white and working-class fertility should be restricted (Carey 2012).

It was in this ‘liberal’ context emphasising heterosexual harmony that gynaecologist and eugenicist Robert Latou Dickinson investigated the possible link between genital abnormality and abnormal (homosexual, autoerotic) sexual desire, which was considered to be a great threat to marital happiness (Terry 1999, 153). The identification of aberrance in the genitals also presented the possibility of preventing ‘sex variants’ from reproducing (Terry 1990). For Dickinson, ‘the danger of sexual excess’ (1902, 251) could be positively associated with hypertrophied labia, described as ‘[t]hickened, elongated, curled on themselves, thrown into tiny, close-set, irregular folds that cross at all angles, as in a cock’s comb’ (Dickinson 1902, 225). In 1902 Dickinson asserted categorically that hypertrophies of the labia were evidence of auto-
eroticism, a practice which was likely, in his opinion, to have a negative effect on women’s enjoyment of marital sex. In 1927, Havelock Ellis cited the Dickinson study to come to the conclusion that his theory of masturbation was ‘probably correct in the main’ (2007 [1927], 122). In his book Human Sex Anatomy (1933), Dickinson would examine a group of two hundred European prostitutes, with the conclusion that ‘there were only four women with small external genitals showing no external hypertrophies’ (cited in Miller 2000, 80), buttressing his theory that labial hypertrophy was evidence of sexual excess. Dickinson also conducted a series of investigations (known as the Sex Variant Study) between 1935 and 1941 into female sexual anatomy in order to ‘identify inverted so that physicians could then try to stop them from reproducing and further contaminating the race’ (Tuana 2008, 779). His central concern was with marital happiness, thus, his approach in addressing it was to turn his attention to ‘the women whose practices signaled marital breakdown – prostitutes and lesbians’ (Miller 2000, 80). Through physiognomic measurement of ‘invert’ populations, he sought to establish that the enlargement of the genitals signalled sexual excess and moral deviancy. Dickinson firmly believed that the female genitals ‘offered clues for detecting a woman’s proclivity toward lesbianism, masturbation, frigidity, and promiscuity’ (cited in Kline 2001, location 781). His research made it clear that tendencies toward lesbianism and autoeroticism were a threat both to marital happiness and the genetic ‘health’ of the white race (Kline 2001).

His interest in birth control as a means of promoting racial advancement brought him into contact with renowned birth control advocate, feminist and eugenicist, Margaret Sanger. Sanger openly supported sterilisation of ‘feebleminded’ mentally ill persons, prostitutes, criminals and other characters considered genetically defective (Carey 2012, 741), a category which would also have included black women. Sanger was unequivocal that ‘voluntary motherhood’ would aid ‘the process of weeding out the
unfit’ in order ‘to make racial progress’ (Sanger, cited in Carey 2012, 740). Indeed, her book, *Woman and the New Race* (1920) was produced by the Eugenics Publishing Co. of New York, and printed with a preface by none other than sexologist Havelock Ellis (Carey 2012, 739). Although Dickinson’s scientific methods were informed by eugenic principles, he was more concerned with identifying the presence of abnormal desire than racial difference. In fact, he believed that elongated labia were not racial but developmental; that the medical literature on the ‘Hottentot apron’ grossly exaggerated frequency and size; and that hypertrophy was not at all uncommon among ‘American whites and Negroes’ (Dickinson 1902, 232–235, n. c). Nevertheless, it was colonial race science that provided the analytic tools for Dickinson’s study of the link between physiology and sexuality, abnormal bodies and abnormal desires. The discourse of labial hypertrophy thus shifted from demonstrating inferiority, animality, and species difference in black bodies to illustrating reproductive weakness in white ones. While the ‘Hottentot apron’ implied the impossibility of interracial reproduction – through the suspicion that Hottentot women were in fact a different species and thereby allaying white fears of miscegenation – the labia of hypersexual white women identified by Dickinson in the twentieth century accounted for a new and different threat to social harmony: family breakdown.

In this period of American history, genital appearance was a component in the procedural application of sterilisation policies. The Sonoma State Home for the Feebleminded, for instance, had a sterilisation policy in place from January 1918 to August 1919, and many of its female inmates were sent there on account of ‘sexual delinquency’ (Kline 2001, locations 762–763). Doctors were careful to collect information on the inmates, including genital measurements. In that year, half the women admitted to Sonoma were observed to have ‘abnormal’ genitals, half again of which were identified as hypertrophic, which was considered a sign of sexual deviance.
and therefore recursively provided further proof of the need for sterilisation (Kline 2001, location 778–780).

The medical construction of abnormality, and the inverse drive to define ‘normal’ feminine sexuality, particularly through labial size, cannot be disconnected from eugenics projects that venerated a white, heterosexual femininity responsible for reproducing the health of the race. The eugenic management of motherhood was integrally connected to the identification of female sexual deviancy through pathologisation of the genitals. In the medicalised language of labial hypertrophy, elongated labia became increasingly synonymous with lesbianism, masturbation, and prostitution, sexual activities which were morally wrong because none were directed toward a reproductive end, which of course, was considered to be the essence of woman’s identity.

**Problematic Etiologies**

The medicalisation of labial hypertrophy in the twentieth century cannot be dissociated from its colonial moorings, and the medical literature is smattered with etiological taxonomies answerable to a moral order by which gender and racial propriety are aligned, either directly, through the morphology of the labia, or indirectly, via the intimation of improper sexual behaviour.

For instance, while Dickinson maintained that ‘[w]ell marked acquired hypertrophies about the vulva are auto-erotic evidence’ (1925, 1116), and therefore proof of sexual impropriety, his contemporary, Ellis, thought instead that labial hypertrophy was congenital to the ‘lower races’ and European women of an ‘infantile type’. By 1948, the British Medical Journal had expressed scepticism at the evidence for
masturbation as the cause of labial hypertrophy, with the suggestion that although labial stretching occurred ‘among the women of some primitive tribes’, the supposition of masturbation as an etiology was most likely exaggerated and ‘impossible to prove, if only because a patient’s denial of masturbation is not usually to be accepted, but it would appear that the condition is most often a developmental anomaly’ (BMJ 1948, 85).

This etiological debate reflected a confusing lack of consensus as to whether the ‘Hottentot apron’ was a congenital racial characteristic or an acquired ‘abnormality’, though the two were often conflated, with the practice of artificial labial elongation seen to belong to a racial type. As Worsley recounted in 1938, ‘Among some peoples, notably the Hottentots and Abyssinians, excessive labial hypertrophy occurs as the result, it is said, of prolonged masturbation. The well-known Hottentot apron is an example’ (Worsley 1938, 690).

In Obstetrics and Gynecology journal in 1976 Radman attributed labial hypertrophy to both racial and sexual deviancy in connection with the Oriental woman:

Most observers agree that the massive hypertrophy of the labia found in Oriental women is a post filarial condition engendered by a) blocking of the lymphatic return, b) prostitution or excessive intercourse, c) lack of cleanliness, or d) racial predisposition to skin hypertrophy (Radman 1976, 79s).

Radman went on to say that the ‘Hottentot apron’, by way of contrast, was a result of manual stretching (1976, 79s).

Labial hypertrophy is not only understood to be a normal feature of the Oriental or Hottentot female body – and is thus, by implication, an abnormality among European women – but also a sign of prostitution, both of which are represented as forms of
physical and moral degradation. The clean and proper body is one which does not show
the signs of obscenity (the labia).

Even as late as 1978, Honore and O’Hara would state that there are ‘racial and
genetic factors that determine the size and thickness of the labia minora and it is
possible that these determinants are occasionally at fault, resulting in excessively large
labia minora, i.e. idiopathic labial enlargement’ (1978, 63).

Contemporary articles of the last decade are still divided about the role of
masturbation as a cause of labial hypertrophy, with one 2007 article stating that
‘research shows no empirical evidence for an effect of sexual activity on labia length’
(Bramwell, Morland and Garden 2007, 1493), and another from 2011 listing
‘mechanical irritation by excessive masturbation or intercourse’ as one acquired cause
(Horacio et al. 2011, 345). Generally, the recent opinion on etiology varies:
‘hypertrophy’ is most likely congenital, but is also hypothesised to be caused by
hormones, inflammation, infection, chronic stimulation, manual stretching, recurrent
dermatitis, and stretching following multiple pregnancies (Pappis and Hadzihamberis
1987; Sakamoto et al. 2004; Lynch, Marulaiah and Samarakkody 2008; Tepper, Wulkan
and Matarasso 2011). Genetics still appears as an etiology, but explicit references to
race, as well as the suspected role of masturbation appear to have mostly disappeared
from the discussion.

While racial and sexual deviancy are no longer readily apparent in the medical
literature – presumably because they are recognised as belonging to a flawed scientific
explanatory model – it doesn’t mean that they do not still resonate in what we might call
the ‘white cultural unconscious’ as a central motivating force in the desire for
labiaplasty. In this respect, we follow John Cash’s concept of a ‘political/cultural
unconscious’ (2004, 166) as the congealment of a discursive repertoire made available
to us by the processes of a history within which we are all subjectively situated. Such a repertoire consists of ‘racial imagery’ (Dyer 1997, 1) embedded within concrete practices of identity formation. The trick of whiteness is in the ubiquity of its visual representations which nonetheless pretend to be representing everything but racial difference. Whiteness signifies itself everywhere, yet conceals its traces with the privilege of historical amnesia. We suggest that the contemporary practice of CLS is the resignification of an old colonial fear – of white femininity threatened by racial contamination – that refuses to show itself, except as the hysterical expression of body shame. We do not deny that gender oppression cuts deep – certainly, we have identified many of the ways in which female sexuality has been interpolated by medical discourse for the purposes of moral instruction and obedience – however, we are also struck by the sheer force and tenacity of race in the science of labial excision, which persists in the language used by medics and ordinary women of today in which ‘excessive’ protrusion and discoloration equate to ugliness, abnormality and the fear of having the wrong body. As Frantz Fanon argued in *Black Skin, White Masks*, there is more to colonialism than its economic and historical conditions in that there is a psychic component that organises relations of identity between ‘the colonized and the colonizer’ (Fanon 1967, 83). For Fanon, racism is not individual or exceptional, but structural – and inherited. Fanon explains that the collective unconscious is not genetic, as Jung had supposed, but representational: ‘purely and simply the sum of prejudices, myths, collective attitudes of a given group’ (1967, 188). The stage upon which the drama of self and other unfolds is colonisation and its endless production of racialised phobias, especially those unincorporable objects that threaten the purity of the clean, white body. As Fanon illustrates, colonial hatred manifests itself in the association of blackness with dirt, both physical and moral (1967, 189).
Corporeal containment or neatness, as well as cleanliness, are central in the marketing of labiaplasty to women, and they reflect deeply held anxieties about feminine non-conformity. Such beliefs, cynically exploited by cosmetic surgeons and implicitly avowed in the medical literature, are embedded within a moral framework that regulates gender and sexuality through a distinctly white, colonial ideal of femininity. What we call the ‘normalisation of revulsion’, as it relates to the labia, is also reflected in our legal structures. In Australia, for instance, ‘unrestricted’ category soft-porn publications such as Penthouse (which can be sold to people over the age of fifteen and under the age of eighteen) are legally obliged by the Office of Film and Literature Classification to photoshop or airbrush out visible labia minora (Drysdale 2010). Commonwealth guidelines state that for the unrestricted category, ‘realistic depictions may contain discreet genital detail but there should be no genital emphasis’ (Office of Legislative Drafting and Publishing 2005, 8). In addition, under the NSW Crimes Act 578C, it is an offence to publish unclassified material deemed ‘indecent’. This definition incorporates the display of genital detail. That Commonwealth and state legislation considers the labia too explicit to be shown demonstrates how deeply ingrained is the notion that labia are somehow more vile than other parts of human genital anatomy.

The current existence of the vulval ‘norm’ would not have come about without prior racist medico-discursive practices of physiognomic measurement for the purposes of producing a heteronormatively compliant body. For us, the growing demand for labiaplasty procedures is ‘new’ only insofar as it resurrects, albeit in a different fashion, certain historically entrenched narratives that make the female body a border object; a historical and cultural artefact situated between human and animal, white and black. Aesthetic labiaplasty surgery is simply a re-colonisation of bodies in a misguided (post)humanism that seeks the resolution of difference through assimilation to a
dominant model that perpetuates the idea of racial purity (black excess will not be tolerated). Unlike the period in which Dickinson and his sexologist cohort were conducting their research, in today’s post-sexological and hypersexualised climate, concerns for moral degeneracy are eclipsed by the drive to enforce a physical monoculture. Today’s surgeons instead practice what we might hesitantly call an ‘aesthetic eugenics’, in which bodies that diverge from an idealised white, heterosexual norm are surgically altered to conform to it. In the post-Pill, postfeminist twenty-first century, the traditional aim of eugenics to control the organic body through genetic reproduction and contraception is supplemented by the surgical management of female bodies through cosmetic surgery. Since the rise of the cosmetic surgery industry and its technologies, the maternal body has not been as central as it once was to the (re)production of race. If racialisation is constituted through the construction of morphological distinctions and classifications, then cosmetic surgery contributes to such a program through situating the female body as a border object that marks out the difference between perfection and imperfection. The reproductive imperative has become augmented, if not displaced, as the main object of eugenics, with the inscription of racial conformity directly onto skin and bone.
References


Labiaplasty and pornography: a preliminary investigation

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Foreword

This paper represents the first empirical investigation of the relationship between labiaplasty, genital satisfaction and pornography. This study was designed primarily as a qualitative investigation (see Appendix 1); however, this paper presents the analysis of the quantitative Likert items investigating women’s satisfaction with their vulvas and openness to labiaplasty. Previous work in this area has been strictly theoretical. We do not claim that this work is exhaustive or definitive. The purpose of this study was to test, in a preliminary fashion, the simplistic presentation of the Porn Thesis. In accordance with the Porn Thesis, the model included only pornography consumption and demographic data.
Abstract

Discussion about the increasing incidence of labiaplasty has given rise to the widely accepted theory that pornography consumption is the primary driver of this trend. No previous research has attempted to investigate the usefulness of this thesis in predicting genital dissatisfaction or openness to labiaplasty. Our study surveyed women, online and anonymously. There were 1083 participants from 25 countries (majority Australian). We found that women were largely satisfied with the appearance of their vulvas, and generally were not open to labiaplasty. We also found that while pornography was associated with openness to labiaplasty, it was not a predictor of genital satisfaction, casting doubt on a linear framework that positions pornography as the main driver for female genital cosmetic surgery. We concluded that the model is incomplete and that there are additional predictors that must be included in future models.

Keywords: Plastic surgery; pornography; Female genital cosmetic surgery; labiaplasty; genital satisfaction.
Background

There has been increasing interest in both the popular public sphere and feminist academic circles about the reported growing demand for female genital cosmetic surgery, especially labiaplasty. Aesthetic labiaplasty is a cosmetic surgical procedure in which ‘hypertrophic’ (or large) labia minora are excised. Before-and-after images from the clinical literature show that the surgical norm is for the labia minora to be rendered invisible or largely hidden beneath the lips of the labia majora (Pardo et al. 2006; e.g. de Alencar Felicio 2007; Lynch, Marulaiah, and Samarakkody 2008; Solanki et al. 2010).

Although labiaplasty procedures constitute a relatively small percentage of overall cosmetic surgical operations, there is evidence that they are increasing. In Australia, Medicare figures on cosmetic labiaplasty (item 35533) show that the number of procedures rebated through the public health system has doubled over the last decade (Department of Human Services). In the UK labiaplasty operations performed on the National Health Service almost trebled from 1998–2008 (Braun 2010). There are no figures specific to labiaplasty in the US, but there are data on ‘vaginal rejuvenation’ procedures (Goodman 2011). However, the data are conflicting, with some statistics showing a rise in these surgeries from 2008–9 (American Academy of Cosmetic Surgery 2009, 2010), and others showing no growth in ‘vaginal rejuvenation’ over the years 2007–2012 (American Society for Aesthetic Plastic Surgery 2007, 2008, 2009, 2010, 2011, 2012). The discrepancy may indicate that in the US, more women are turning to cosmetic, not plastic, surgeons for these procedures. Although there is some evidence for an increase in cosmetic vulvar surgery, it is important to keep these figures in perspective; the US data suggests that they contribute one of the lowest proportions of overall cosmetic procedures (around 0.2% of cosmetic surgical procedures).
According to accounts given by cosmetic surgeons, women seeking labiaplasty express concerns about aesthetic appearance, fears of abnormality, and problems with physical comfort and sexual function (Bramwell 2002; Bramwell, Morland, and Garden 2007). Goodman (2011) found that in at least two studies (Rouzier et al. 2000; Goodman et al. 2010) the majority of patients cited aesthetic reasons for undergoing labiaplasty, followed by discomfort in clothing, dyspareunia (painful intercourse), and discomfort with exercise. Goodman concluded that ‘patient motivations were primarily aesthetic’ (Goodman 2011). The popular, academic and clinical literature suggests that there are at least four main hypothesized socio-cultural influences motivating women to seek surgery: media, including women’s magazines; the normalization and increased availability of cosmetic surgery; the increasing frequency of pubic hair removal; and pornography (Braun and Wilkinson 2001; Bramwell 2002; Braun 2005; Green 2005; Lloyd et al. 2005; Bramwell, Morland, and Garden 2007; Tiefer 2008; Koning et al. 2009; Braun and Tiefer 2009; Braun 2010; Schick, Rima, and Calabrese 2011; Rodrigues 2012).

Pornography looms particularly large in these discussions. Anecdotal evidence from surgeons that women are bringing in images of vulvas from soft porn magazines into their consultations (Braun 2005; Green 2005; Liao and Creighton 2007) has been highlighted to demonstrate that ‘heterosexual pornography informs the model or ideal that [labiaplasty surgery] clients have for their post-operative genitalia’ (Green 2005, 174). Australian Doctor boldly proclaimed that ‘Internet pornography is to blame for a four-fold increase in ‘designer vagina’ surgery during the past decade’ (Newton 2012). Virginia Braun attributed the youthful, pre-pubescent aesthetic in which the labia minora are hidden from view to ‘the ‘unreal’ vulvas displayed in heterosexual male-oriented pornography’ (Braun 2005, 413). A number of theorists (Green 2005; Braun and Tiefer 2009; Koning et al. 2009; Plowman 2010; Rodrigues 2012) have stated that
both pubic hair removal and pornography are two central factors that account for the rise in labiaplasty surgeries in the West. Similarly, Schick, Rima and Calabrese (2011) suggest that exposure to pornographic images influences women’s genital satisfaction. In their study, women rated pre-labiaplasty images of vulvas less attractive than post labiaplasty vulvas and those found in Playboy centrefolds. From their review of trends in genital detail displayed in Playboy centrefolds, the researchers concluded that ‘a “tucked-in look” is one aspect of the prototypical genital appearance that is promoted by pornographic imagery and, consequently, sought and desired by women’ (Schick, Rima, and Calabrese 2011, 79).

There is strong evidence to suggest that soft porn magazines such as Playboy are either deliberately selecting for small inner labia or airbrushing them out; however, it is important to note that this may not be attributable to a heterosexual male preference for hidden labia minora. For instance, under Australian law, soft porn publications are only able to be classified as ‘unrestricted’ – and therefore able to be sold to people under the age of 18 – if they are not deemed too explicit according to criteria determined by the Australian Classification Board. As journalist Kirsten Drysdale points out, many of the models in magazines such as Picture, Playboy and Penthouse have their inner labia airbrushed out not to ‘suit the taste of their readership’, but to conform to Classification Board guidelines allowing ‘discreet genital detail’, but no ‘genital emphasis’ (2010). In 2001, Australian Women’s Forum wanted to include pictorial representation of before-and-after shots of labial reduction surgery in an investigative article. The Office of Film and Literature Classification forced the magazine to blank out the photos with the rationale that they displayed ‘too much genital detail’ (Ms Naughty 2012) and were ‘not suitable for six or seven-year-olds to see at newsagents’ (Robotham 2001). Similarly, the student organization at the University of Sydney was forced to remove its magazine Honi Soit from stands because images of vulvas appeared on the cover (O’Brien 2013),
although a previous cover with a picture of a flaccid penis had been allowed to run with no complaint (Ryan et al. 2013). These examples demonstrate that rather than there being a particular visual fantasy that is structurally intrinsic to pornography, longstanding cultural disgust for the labia (Nurka and Jones 2013), enshrined in obscenity law, is influencing soft porn depictions of the female genitals. Additionally, we question the extent to which soft porn print magazines are a source of pornography for women consumers.

There are several problems with what we will refer to here as the popular ‘porn thesis’ that positions heterosexual male-oriented pornography as a direct cause of women’s genital discontents: firstly, it compels soft porn to stand in for all porn through the assumption that pornography presents a unified image of female genitalia which then drives demand for labiaplasty. This implies that ‘pornography’ is a generalized phenomenon, rather than the distinct and heterogeneous set of practices by which it is in fact constituted. As Weil Davis reminds us, there is variety in pornography, which includes ‘a wide variety in the female genitalia on display’ (2002, 12). Secondly, the assumption of linear causality from porn consumption to labial surgery does not consider the possibility that the genital images found in soft porn magazines may in fact be illustrative, rather than generative. Liao and Creighton (2007) note that their patients researched soft pornographic pictures in order to illustrate their desired genital appearance, not that they were regular consumers of such images. Thirdly, according to Smith (2010) the concept of pornographication is problematic because it is too totalizing a narrative to be of use in empirical study. She argues that the use of terms like pornification and pornographication preclude the emergence of new or different research questions (2010 104). Lastly, the linear argument assumes that factors such as mental health and personality traits are either inconsequential or secondary influences compared with pornography consumption. It fails to consider the complex ways in
which body, psyche and culture are entwined. A more nuanced investigation may involve examining individual differences in influences on genital dissatisfaction that are not reducible to heterosexualised gender alone.

In its most basic form, the porn thesis is based on the assumption that women consume pornography and internalize its norms, which then drives genital dissatisfaction and surgical modification of the labia. The aim of this paper is to interrogate these assumptions. As the study is exploratory, we make no specific hypotheses. However, our research questions are as follows: To what extent does pornography consumption predict genital satisfaction and openness to labiaplasty, and are there candidate variables that could be included in future models? These questions were investigated through the Vulvatalk Project. It comprised a qualitative study designed to elicit women’s responses to a range of phenomena, including genital satisfaction and attitudes to labiaplasty, through an anonymous online survey.

Methods

Participants

The participants were 1083 women from 25 countries. The majority were Australian (85.7%), with a further 5.1% from the United Kingdom and 5% from the United States of America. Their mean age was 34 ($SD=10.1$), ranging from 18 to 85. Around half (52.3%) of the sample were mothers. The majority (82.6%) identified as primarily heterosexual, 6.2% were primarily homosexual, and 9% identified as bisexual. A further 1.3% identified as celibate and the remaining 0.8% selected ‘other’. The sample was highly educated, with 64.8% having an undergraduate degree or above. This
is well above the Australian national average of around 30% (Australian Bureau of Statistics 2011).

**Materials**

This paper presents a quantitative analysis of the seed questions presented in the questionnaire. These are not psychometrically tested instruments, as the primary purpose was to allow participants to position themselves to respond to the long-answer follow-up items. Quantitative items were general in nature to avoid predisposing participants to bias; there were 10 five-point Likert items and 14 long answer items. The item addressing pornography consumption did not distinguish between types of pornography in order to be consistent with the monolithic presentation of pornography – the ‘porn thesis’ – that we are investigating. The item asked participants to subjectively rate their pornography consumption over the last five years as ‘frequently’, ‘occasionally’ or ‘never’. Five years was chosen as a timeframe that might reasonably influence a woman’s self-image. It is unlikely, if pornography consumption changes the way women feel about their genitals, that it does so instantaneously. For younger participants, this timeframe may intersect with early sexual experiences, and for older women (in their thirties or forties) it may also cover the time of childbirth. These times may be important, as the body is changing, and it is likely that women’s perceptions are also changing and they may be more open to outside influence. A range of demographic variables that may influence women’s self-perception were also included (education, sexual orientation and parity). These were limited in order to preserve anonymity.
Procedure

The project was approved by the Human Research Ethics Committees of the University of Melbourne and the Australian National University. Participants were recruited via a Facebook page (www.facebook.com/vulvatalk) designed specifically to recruit a community sample. Potential participants were screened, and only those over 18 and who identified as female were invited to participate. The Facebook page was shared by the investigators within their networks. Visitors to the page were encouraged to ‘Like’ and/or ‘Share’ the page, as well as to participate in the research. During the data collection phase, we made six posts on the Facebook page reminding people to share our page to help with recruitment. Participants could also email the link to the questionnaire directly to their contacts so it could be shared among those who did not have an account with Facebook. We estimated we would receive around 250–500 responses and this was well exceeded.

Clicking on the link to the questionnaire opened an information page with a general description of the research, its aims, risks and estimated time for completion; submission of a completed questionnaire constituted implied consent and ensured anonymity. Other measures designed to preserve anonymity included the restriction of demographic data collected to broad categories and the de-identification of responses so that IP address information, time of completion and referring URL were not recorded. Additionally, submission dates were invalidated prior to submission ensuring that there could be no alignment of responses with webserver logs. In this way there was no way to identify an individual participant, even if requested.

All data were analyzed using SPSS version 20. Genital satisfaction was measured using three items pertaining to the participants’ satisfaction with the size, shape and colour of their genitals. These items were correlated ($R^2$ between 0.680 and 91
0.842, all p<0.005) and were subsequently summed to create a single calculated variable. This calculated variable had a possible range of three to 15, with higher scores indicating higher satisfaction. Cronbach’s alpha was calculated at 0.90 (95% CI [0.89, 0.91]) for the three-item scale, indicating excellent reliability. The resultant distribution was bimodal with 348 (32.2%) cases scoring nine and 316 (29.2%) cases scoring the maximum 15. Genital satisfaction was significantly lower among those who indicated that they would consider genital cosmetic surgery (M=8.97, SD=3.15) compared with those who would not (M=11.37, SD= 2.95), t (1081) = 7.47, p<0.005, Cohen’s d=0.79 indicating construct validity for the calculated variable. Women’s openness to genital cosmetic surgery was assessed via a single 5-point Likert item (‘Would you consider cosmetic surgery for your labia (lips) or vagina?’). However, this item was collapsed into three categories (Unlikely, Neither unlikely nor likely, and Likely) due to extreme skewness and low cell counts in the ‘likely’ categories. Finally, a single case was excluded from the analyses as the age was listed as 553, leaving the final dataset with 1082 cases.

Results

There were a number of skewed results in the survey data: for each of the three original items relating to genital satisfaction, a majority of participants were ‘Neither dissatisfied nor satisfied’ or ‘Very satisfied’ (Table 1). The sample in this survey were not generally open to the idea of genital cosmetic surgery (Figure 1) with only 93 women (8.6%) indicating that they were ‘Somewhat likely’ or ‘Very likely’ to consider the procedure.
Figure 1: Openness to labiaplasty (N=1082)

Table 1: Distribution frequency for genital satisfaction items (N=1082)

<table>
<thead>
<tr>
<th>Response category</th>
<th>Size</th>
<th>Shape</th>
<th>Colour</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dissatisfied</td>
<td>37 (3.4)</td>
<td>31 (2.9)</td>
<td>17 (1.6)</td>
<td>28 (2.5)</td>
</tr>
<tr>
<td>Somewhat dissatisfied</td>
<td>120 (11.1)</td>
<td>72 (6.7)</td>
<td>60 (5.5)</td>
<td>84 (7.8)</td>
</tr>
<tr>
<td>Neither dissatisfied nor satisfied</td>
<td>416 (38.4)</td>
<td>448 (41.4)</td>
<td>455 (42.1)</td>
<td>440 (40.7)</td>
</tr>
<tr>
<td>Somewhat satisfied</td>
<td>134 (12.4)</td>
<td>136 (12.6)</td>
<td>150 (13.9)</td>
<td>140 (12.9)</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>375 (34.7)</td>
<td>395 (36.5)</td>
<td>400 (37.0)</td>
<td>390 (36.0)</td>
</tr>
</tbody>
</table>

TOTALS                        | 1082  | 1082   | 1082   |

Frequency counts per item and mean per category for the items ‘How satisfied are you with the size of your labia (lips) or pubic region?’ ‘How satisfied are you with the shape
of your labia (lips) or pubic region?’ and ‘How satisfied are you with the colour of your genitals?’ Percentages may not add to 100 due to rounding.

We conducted two analyses to investigate the predictive value of pornography and a range of demographic variables on genital satisfaction and openness to labiaplasty in the sample of women. Genital satisfaction was analyzed using an ANCOVA with age as a covariate ($r=0.61$, $p<0.05$) and five fixed factors (sexual orientation, visual inspection of genitals, education, parity and pornography consumption). This procedure was selected due to its robustness to unequal sample sizes (Howell 1997). When controlling for age, only sexual orientation, $F(4,1066) = 3.57$, $p < 0.05$, partial $\eta^2=0.013$, and visual inspection of the genitals, $F (1,1066) = 11.86$, $p < 0.05$, partial $\eta^22=0.011$ were significantly related to genital satisfaction. Genital satisfaction was higher in women who identified as primarily homosexual ($M = 11.75$, $SE = 0.41$), as compared with those who identified as primarily heterosexual ($M = 10.51$, $SE = 0.18$), when controlling for age. Women who reported close visual inspection of their genitals had higher levels of satisfaction ($M = 11.52$, $SE = 0.3$) than those who had not ($M = 10.52$, $SE = 0.39$) when controlling for age. There were no main effects for pornography consumption, education, parity or age. The model was not a good fit for the data, with only 4.2% of the variance in genital satisfaction explained by the model ($R^2 = 0.042$).
Table 2: Contingency table: education and openness to labiaplasty showing standardized residuals (N=1082)

<table>
<thead>
<tr>
<th>Education</th>
<th>Unlikely</th>
<th>Neither unlikely nor likely</th>
<th>Likely</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>No degree</td>
<td>319 (-0.8)</td>
<td>21 (2.2)*</td>
<td>40 (1.3)</td>
<td>380</td>
</tr>
<tr>
<td>Degree or above</td>
<td>633 (0.6)</td>
<td>16 (-1.6)</td>
<td>53 (-0.9)</td>
<td>702</td>
</tr>
<tr>
<td>TOTAL</td>
<td>952</td>
<td>37</td>
<td>93</td>
<td>1082</td>
</tr>
</tbody>
</table>

* = P<0.05; ** = p<0.01; *** = p<0.001

* Standardized residuals fall on a z-distribution indicating which cells are contributing significantly to the overall $\chi^2$ statistic (Field, 2009).

Openness to labiaplasty was initially analyzed using logistic regression, however, the model failed to converge due to low cell counts. The data were subsequently analyzed using a series of chi-square tests. Type 1 error was controlled using the Bonferroni adjustment, producing an $\alpha$ of 0.007 per pairwise contrast (experimentwise $\alpha = 0.05$). In order to run this analysis, the continuous variables of age and satisfaction were recoded into categorical variables. Age was coded into three categories: 18–29, 30–39, and 40+ to avoid low cell counts with very young, or older participants. Similarly, satisfaction was recoded into two categories by deploying a cutoff score thereby creating a binary variable of caseness. Cases were participants who scored under nine (dissatisfied) and non-cases were participants who scored 9 or over indicating that they were either neutral, or indicated some level of satisfaction (neutral or satisfied). This cutoff was chosen as in order to score 8 or below participants must have indicated some level of dissatisfaction on at least one item. To avoid a large
number of very low cell counts, we also recoded education into a binary variable: those with a university education, and those without. Age, sexual orientation, parity and visual inspection of the genitals all had no association with openness to labiaplasty. There were three variables with a significant relationship with openness to labiaplasty: education, genital satisfaction, and pornography consumption. With regard to education (Table 2), women without a university degree were more likely to be undecided with regard to labiaplasty (neither likely nor unlikely to consider the procedure) than those with a degree ($\chi^2 (2) = 11.23, p <.007$) with small effect (Cramer’s $V = .10$). As expected, there was a significant association between genital satisfaction and openness to labiaplasty ($\chi^2 (2) = 118.16, p <.007$; Fisher’s exact test $p <.007$). Low genital satisfaction was associated with higher than expected membership in the ‘likely’ and ‘neither’ categories, and lower representation in the ‘unlikely’ category. Likewise, women in the neutral or positive genital satisfaction category were underrepresented in the group who were open to labiaplasty (Table 3). Surprisingly, genital satisfaction only had a moderate effect on openness to labiaplasty (Cramer’s $V = .33$). Finally, there was also a significant association between pornography consumption in the last five years and openness to labiaplasty ($\chi^2 (4) = 26.42, p <.007$; Fisher’s exact test $p <.007$), again with small effect (Cramer’s $V = .11$). The pattern of standardized residuals (Table 4) indicates that those who frequently watched pornography were more likely to be either undecided or open to labiaplasty. Conversely, those who never watched pornography were likely to be underrepresented in those categories.
Table 3: Contingency table: genital satisfaction and openness to labiaplasty showing standardized residuals (N=1082)

<table>
<thead>
<tr>
<th>Genital satisfaction</th>
<th>Unlikely</th>
<th>Neither unlikely nor likely</th>
<th>Likely</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissatisfied</td>
<td>89 (-3.3)***</td>
<td>10 (2.3)*</td>
<td>45 (9.3)***</td>
<td>144</td>
</tr>
<tr>
<td>Neutral or satisfied</td>
<td>863 (1.3)</td>
<td>27 (-0.9)</td>
<td>48 (-3.6)***</td>
<td>938</td>
</tr>
<tr>
<td>TOTAL</td>
<td>952</td>
<td>37</td>
<td>93</td>
<td>1082</td>
</tr>
</tbody>
</table>

* = P<0.05; ** = p<0.01; *** = p<0.001

Standardized residuals fall on a z-distribution indicating which cells are contributing significantly to the overall χ² statistic (Field, 2009).

Table 4: Contingency table: pornography and openness to labiaplasty showing standardized residuals (N=1082)

<table>
<thead>
<tr>
<th>Pornography consumption</th>
<th>Unlikely</th>
<th>Neither unlikely nor likely</th>
<th>Likely</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently</td>
<td>91 (-1.2)</td>
<td>8 (2.0)*</td>
<td>18 (2.5)*</td>
<td>117</td>
</tr>
<tr>
<td>Occasionally</td>
<td>554 (-0.3)</td>
<td>27 (1.1)</td>
<td>58 (0.4)</td>
<td>639</td>
</tr>
<tr>
<td>Never</td>
<td>307 (1.2)</td>
<td>2 (-2.7)**</td>
<td>17 (-2.1)*</td>
<td>326</td>
</tr>
<tr>
<td>TOTAL</td>
<td>952</td>
<td>37</td>
<td>93</td>
<td>1082</td>
</tr>
</tbody>
</table>

* = P<0.05; ** = p<0.01; *** = p<0.001

Standardized residuals fall on a z-distribution indicating which cells are contributing significantly to the overall χ² statistic (Field, 2009).
Discussion

Our aim was to assess the veracity of claims about the level of genital dissatisfaction and support for labiaplasty among women, and the direct role of pornography in the uptake of labiaplasty. We also assessed the role of sociodemographic variables and found that some of these factors (sexual orientation and education) may play a role in genital satisfaction and openness to labiaplasty. Some results initially appear to support the pornography thesis, but closer examination of the analysis indicates that this is not the case, and further, that media reports of widespread genital dissatisfaction and demand for labiaplasty are not supported in this sample.

Pornography consumption in the last five years was not a predictor for genital satisfaction (and inversely, dissatisfaction), but it was associated with openness to labiaplasty. These results do not support a simple linear ‘porn thesis’ that women watch pornography, compare themselves unfavourably with the images presented therein, and become dissatisfied with the appearance of their vulva and therefore seek surgery. The fact that we failed to find a relationship between pornography consumption and genital satisfaction/dissatisfaction casts doubt on this simple linear model. Moran and Lee (2014) recently found that exposure to images of modified vulvas changed women’s perception of normality. However, in experimental design participants were exposed to a far higher rate of images of modified vulvas that they would typically experience in daily life. It is therefore possible that the lower rates of exposure in our environment may not be enough to change our perceptions. Our apparently conflicting results may be due to the large amount of unexplained variance in the model. This suggests that there are missing variables that could better explain the variance in genital satisfaction. Similarly, while pornography consumption was significantly related to openness to labiaplasty, this was only a small effect. Recent research into psychological predictors
of cosmetic surgery in general suggests that mental health indicators such as depression, substance use and self-harm are strong predictors of cosmetic surgery (von Soest, Kvalem, and Wichstrom 2012), as is objectification, (Calogero et al. 2010) and personality and self-esteem (Swami et al. 2009). Self-esteem is also a significant predictor of genital satisfaction (Bramwell and Morland 2009), and there are correlates with anxiety, quality of life and Body Dysmorphic Disorder (Veale et al. 2013).

Pornography consumption may work indirectly upon women’s desire for labiaplasty. For example, it may be through men’s pornography consumption, and subsequent evaluation of women’s genitals, that women become dissatisfied, although this was not common in a recent survey of labiaplasty patients (Miklos and Moore 2008). However, a more recent study (Veale et al. 2014) found that negative interpersonal experiences, such as negative comments about the appearance of one’s vulva was associated with participants seeking labiaplasty. While the majority (64%) of these comments came from sexual partners, there were also comments from peers and parents, indicating that while pornography may have some influence, other factors may also be involved. Others have argued that it may also be the ‘pornification’ of our culture, rather than pornography itself which is contributing (Grabe and Hyde 2009). However, as suggested earlier, the ‘pornification’ model lacks diagnostic clarity as it treats all culturally pervasive forms of sexually objectifying imagery (e.g. in advertising) as intrinsically pornographic, conflating the images with the institution (English, Hollibaugh, and Rubin 1982). Due to its analytical muddiness, ‘pornification’ is not diagnostically useful as a term. The concept of ‘objectification’ is preferable because it is a testable model (Fredrickson and Roberts 1997). To test the impact of sexual objectification, it would be necessary to include psychological measures of self-objectification in future models. Exposure to such images may be associated with
depression (Jones and Griffiths in press), and it is possible it may also be associated with poor genital satisfaction.

Our results also indicate some areas of disagreement with reports in popular media. Firstly, only a minority of respondents were dissatisfied with the appearance of their vulvas, in contrast to popular reports that these concerns are common among women (Stark 2010) and stem from pornography or its aesthetic conventions (Conville; Freeman-Greene 2009; 'Pornstar Chic’ Sees Nine-Year Old Girls Ask for Designer Vaginas on the NHS 2012). Other work investigating genital satisfaction has also generally found high levels of satisfaction among participants, with no decreasing trend over time (Bramwell and Morland 2009; Herbenick et al. 2011; Zielinski et al. 2012).

A second point of inconsistency with popular media is the rate of interest in labiaplasty. While popular reports would lead the reader to the conclusion that labiaplasty is one of the more common forms of cosmetic surgery (Davis 2011; Hope 2012; Groskop), both the rates of surgery and the ratings from our sample would indicate that while rates may be increasing, it is still a relatively unusual procedure with limited support. However, heavy media coverage of the increase in labiaplasty may serve to normalize the procedure and help drive uptake rates (Liao and Creighton 2007).

Finally, we found that some sociodemographic variables were associated with genital satisfaction and openness to labiaplasty. Firstly, we found a relationship between education and openness to labiaplasty. While this relationship was weak, it was significant. It may be that women who pursue a university degree are less likely to subscribe to cultural norms about femininity (see Peplau, Hill, and Rubin 1993). Secondly, we found that women who identified as primarily homosexual had higher levels of genital satisfaction. It may be that lesbian women are not objectified (by other women) in the same way that heterosexual women are (by men) and therefore do not
evaluate their bodies in the same way. We have reservations about this explanation. While lesbian media show a wider array of body types (Gonsoulin 2010), studies have found mixed results with regard to self-objectification (Kozee and Tylka 2006; Hill and Fischer 2008). In a meta-analysis, Morrison et al. (2004) found a very small difference in body satisfaction between lesbian and heterosexual women, with greater body satisfaction in lesbian women. However, there may be another explanation within the other significant predictor: close genital examination. In our study, women who had closely visually inspected their genitals were more likely to be satisfied with the appearance of their vulvas. This may indicate that knowledge of the variation in genital anatomy, even one’s own, may contribute to satisfaction. Chavis et al. (1989) speculated that the fears of genital abnormality reported by their labiaplasty patients may have been due to underexposure to vulvar variation. Similarly, Laws (1987) speculated that among participants in self-examination groups, alienation from one’s own biology was responsible for feelings of revulsion and disgust. If it were the case that increased familiarity with one’s own or others’ genitals was associated with increased satisfaction, a lesbian population – with presumably higher exposure to vulvar variation than a heterosexual population – would be more satisfied with their own anatomy. This also implies that if women consume pornography with a wide variety of vulvas, it could potentially increase their genital satisfaction. Alternatively, it is possible that women who are uncomfortable with their vulvas are less likely to look closely at them.

The current study has a number of weaknesses that must be taken into account when interpreting these findings. Firstly, the sample was self-selected and given the sensitive nature of the topic under discussion, it is possible that women who are satisfied with their vulvas may have been more likely to complete such a questionnaire. Similarly, while education had only a small effect, there was a significant relationship
between education and openness to labiaplasty. The sample of women in this study has a very strong bias towards high levels of education and caution is advisable when attempting to generalize these findings across any other populations. Also, given the exploratory nature of the research, the items were primarily seed questions to prompt participants’ responses to long-answer questions. Accordingly, the items were worded non-specifically to avoid inducing bias in responses. The extensive room for lengthy written responses for participants to make their meaning explicit will be the subject of further qualitative analysis. While the lack of psychometrically rigorous instruments is a limitation, this preliminary research suggests directions for future research that could prove to be fruitful lines of enquiry.

To our knowledge, this is the first study to attempt to determine if the popular ‘porn thesis’ is a realistic account of the motivations of women undertaking labiaplasty. While there has been some research into the predictors of cosmetic surgery and genital dissatisfaction, there are no published studies to date interrogating the veracity of the hypodermic ‘porn thesis’ that is promulgated throughout popular media and some academic literature. While this study is by no means comprehensive, it does cast doubt on this simple linear theory and suggests that a more complex model is needed to understand these relationships. It also undermines popular reports of high rates of genital dissatisfaction and widespread support for labiaplasty amongst women. Future research in the area should attempt to reach a fuller understanding of the influences on women who undertake genital cosmetic surgery, such as the influence of their sexual partners, other media, mental health indicators and self-objectification.
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Disclosure statement

The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers’ bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.
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Self-objectification and depression: an integrative systematic review

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Foreword

This paper introduces the concept of self-objectification as defined by Objectification Theory. It summarises the measurement of self-objectification and systematically reviews the evidence in support of Objectification Theory with regard to depression outcomes. As the theory is relatively new, there has not yet been a systematic review of its utility as a predictor for psychopathology. The theory integrates the effects of sexually objectifying media and experiences on the individual in testable predictions. The current review of Objectification Theory also provides context for the VTI study (Paper 4) which investigates the utility of self-objectification as a predictor for genital satisfaction, controlling for depression and other psychological factors.
Abstract

Background:

Objectification Theory positions self-objectification as a cause of depression. In particular, the authors offer Objectification Theory as a partial explanation for the higher prevalence of depression among women than men. To investigate the validity of this theory, we undertook a systematic review of quantitative studies that have investigated self-objectification as a predictor of depression.

Methods:

Studies were identified by searching the PsycINFO, Medline, EMBASE and Cochrane Library databases. Search terms were ‘objectif*’ OR ‘body conscious*’ AND ‘depressi*’ OR ‘dysthymi*’ OR ‘mood disorder’. To be eligible, studies were required to be in the English-language, to include a measure of depression and a measure of self-objectification. Studies were excluded if they did not explicitly examine the association between these variables.

Results:

Among women most studies found a mediated effect for self-objectification on depression. All studies including adolescents found a direct effect. Each of the two prospective longitudinal studies found that an increase in self-objectification over time was associated with a concomitant increase in depression, suggesting a causal relationship. Among men the results were mixed.
Limitations:

The review did not include a quantitative synthesis due to the heterogeneity of the included observational studies. The majority of the studies were cross-sectional precluding conclusions concerning causality. Generalisations to culturally and linguistically diverse populations must be made with caution given the limited cultural diversity within the studies.

Conclusions:

Self-objectification may be a useful predictor of depression, particularly among women and adolescents, and may have clinical relevance among these populations.

Key words: depression, self-objectification, systematic review
1. Introduction

1.1 Objectification Theory

Objectification Theory (Fredrickson and Roberts, 1997) is grounded in the feminist perspective. In developing the theory, the authors have attempted to bring together a range of sociocultural influences and describe how they result in psychological morbidity in women. Objectification Theory starts with the assumption that our cultural experience of objectifying the female body creates a mental health risk factor unique to women.

Objectification can be experienced through interpersonal interaction (e.g., comments about appearance or unwanted sexual advances), through media that depict objectifying interpersonal interactions, and through media that places the viewer in the position of objectifier. This last category includes media such as advertisements, pornography and music videos where women are depicted as being only a body, or part of a body. In particular, compared with the depictions of men, images of women are more likely to exclude a head or face and focus exclusively on her torso, buttocks or legs (American Psychological Association, 2010). The ubiquity of these images, and other objectifying experiences, mean that no woman can escape their influence. In such an environment, women and girls may begin to internalise this objectifying gaze, thereby becoming pre-occupied and dissatisfied with their physical appearance.

According to Objectification Theory, the internalisation of the objectifying gaze (self-objectification) results in serious psychological sequelae, namely: shame, anxiety, interference in peak motivational states, and alienation from internal bodily states. People experience shame when they fail to meet an internalised or cultural ideal. The experience of shame incorporates not only a feeling of inadequacy or of being a ‘bad
person’, but also the negative feelings associated with the public exposure of that deficiency. If one is pre-occupied with one’s appearance and comparing the self to an unrealistic ideal, then feelings of shame are inevitable.

According to the theory, the anxiety engendered by self-objectification is generated from two primary sources: appearance anxiety and safety anxiety. Thus, not only are women judged and evaluated on their appearance, but they are also unable to predict when and where this will happen. This can lead to high self-monitoring and anxiety about appearance. Similarly, the authors argue that victim-blaming in sexual violence leads to anxiety in women, who are often constantly monitoring their own safety.

Peak motivational states, or ‘flow’ are situations in which the individual is fully immersed in a task; unselfconscious and single-minded. Maximisation of such states is thought to contribute to wellbeing. However, in a culture that objectifies females, the ‘flow’ of concentration in women is often interrupted, with their attention drawn back to their physical appearance either internally or by others. It is posited that this interference in peak motivational states contributes to psychological morbidity. In a similar mechanism to the interference in ‘flow’, it is theorised that women are alienated from their own internal cues (such as hunger or arousal) by a pre-occupation with external appearance. Fredrickson and Roberts (1997) argue that this dissociation from a person’s own internal experiences can lead to sexual dysfunction and eating disorders.

Through these mechanisms the authors predict that self-objectification may contribute to mental disorder (Figure 1). They note that self-objectification should be treated as a variable of individual difference; however, they argue that the negative psychological effects can be considered inevitable across the population. A particular strength of the theory is that it incorporates the physical elements of puberty without
necessarily imposing a priori assumptions about hormonal effects. For example, as a girl’s hormone profile changes resulting in the observable physical changes of puberty, there is a concomitant change in how she is treated, and how she views herself and her emerging womanly body. The authors particularly note the relevance of Objectification Theory for disorders that are of higher prevalence in women than men: namely, depression, sexual dysfunction and disordered eating. With regard to depression, there have been numerous attempts to explain the gender difference that is commonly observed across cultures. However, modest successes indicate the need for other explanations, such as Objectification Theory.

1.2 Measurement of self-objectification

There are a number of specific instruments to measure individual difference in self-objectification. The Self-Objectification Questionnaire (SOQ - Noll and Fredrickson, 1998) aims to measure individual differences in self-objectification through assessing the extent to which an individual views their body in objectified terms, rather than non-objectified terms. The questionnaire is structured so that the respondent ranks the importance of a range of physical attributes. Some of these

Figure 1: Objectification Theory
attributes are appearance-based and some are performance-based. Participants who assign higher rankings to the appearance-based items receive a higher score on self-objectification. A strength of the instrument is that it attempts to directly measure the internal state of the individual. However, the ranking methodology may be confusing to some participants, as it is not commonly used, and it is easy to accidentally assign the same ranking to two items. Nevertheless, the psychometric properties of the instrument are satisfactory. The authors note that the pattern of correlations between the SOQ and related instruments suggest that it assesses a preoccupation with appearance, without being based upon a negative evaluation of that appearance. This is consistent with Objectification Theory, which does not rest upon a negative self-evaluation, but rather on whether any evaluation occurs.

The other most commonly used instrument is the Objectified Body Consciousness Scale – Body surveillance subscale (OBCS - McKinley and Hyde, 1996). Unlike the SOQ, the OBCS-BS focuses on the behavioural consequences of self-objectification, namely: self-surveillance. A high score on this scale indicates that the respondent monitors his or her appearance frequently, and thinks of his or her body in terms of appearance, rather than how it feels, or its function. The OBCS also includes subscales for Body Shame and Control Beliefs. These subscales measure the extent to which community norms are internalised and the strength of belief that one can control weight or body shape. However, for the purposes of self-objectification, the Body Surveillance subscale is usually analysed separately from the latter scales.

Lastly, there is a scale that was developed specifically for the adolescent female population – the Adolescent Femininity Ideology Scale (AFIS). The AFIS (Tolman and Porche, 2000) was developed specifically for use in adolescents and has two subscales, one of which measures self-objectification – Objectified Relationship with Body
(OBR). In contrast to the OBCS this scale was developed in female populations with the input of girls from culturally and socioeconomically diverse backgrounds. However, this scale was designed specifically for girls (e.g. “I think that a girl has to be thin to feel beautiful”) and cannot be completed by males. The content of the OBR subscale focuses on psychological rather than behavioural phenomena. The OBR demonstrates adequate internal consistency and test-retest reliability.

1.3 Gender differences in depression

Over the past four decades, epidemiological studies across the world have consistently found that the prevalence of depression among women is approximately twice that for men (Kessler, 2003). This disparity starts around puberty and ceases when women are in their mid-50s (Kessler, et al., 1993). Depression rates among women are not only high relative to men, but are also a leading cause of disease burden (Ferrari, et al., 2013). The high rates of disease burden have fostered great interest in this field and there have been many attempts to explain the gender difference. These have ranged from artefactual to biological and sociocultural explanations (Nolen-Hoeksema, 1987).

Artefactual explanations for the gender difference in depression focus upon the possibility that there is no in vivo difference in rates of depression for men and women, and the differences found by researchers are artefacts of the model or instrument employed to assess depression. However, it is now generally agreed that even after eliminating artefactual explanations, there is still a significant gender difference in rates of depression (Piccinelli and Wilkinson, 2000; Velde, et al., 2010). Accordingly, for the purposes of this paper we will assume that the differences in rates of depression are a reflection of genuine differences in the community.
Biological explanations for sex differences in depression can be divided into two categories: hormonal and genetic. A large body of research has been devoted to investigating menstruation, pregnancy and birth, and menopause as a potential causes. As appealing as this theory is, given that the gender difference occurs only across women’s reproductive life, it has met with mixed empirical support (Kessler, 2003; Nolen-Hoeksema, 1987). While many studies have supported the notion that sex hormones interfere with emotion regulation (Freeman, et al., 2004) there are also some that have failed to find an association (Avis, et al., 2001). There is also evidence that the depression risk in postnatal period does not significantly differ from other times in a woman’s life (American Psychiatric Association, 2013; Cox, et al., 1993), and this would appear to undermine claims that fluctuations in hormone levels cause depression. Similarly, there is no evidence that depression increases at menopause (Bebbington, et al., 1998). Thus, while a hormonal model may account for some variance between the sexes, there are grounds for doubting that it accounts for all the difference. Like hormonal explanations, the contribution of genetic effects to gender differences is unclear. While some studies have found evidence for increased heritability of depression among women (Kendler, et al., 2001; Kendler, et al., 2006), other studies have not (Eley and Stevenson, 1999; Kendler and Prescott, 1999). Generally, there is some evidence to support biological explanations for sex differences but biological explanations do not by themselves explain the large discrepancy in the prevalence of depression among men and women.

Other researchers have focused on psychosocial models; including sex-role stress and rumination. A major portion of the sex difference in Major Depressive Disorder (MDD) arises at the time of the first episode (Kessler, 2003). As first episodes are typically experienced around puberty, it is unlikely that the pressures of career constriction, multiple roles, lower earnings and/ or education and high levels of
domestic load are responsible. There is evidence that rumination may play a role, although effect sizes are modest (Rood, et al., 2009). While the experience of physical abuse and neglect as a child are contributors to depression in later life (Widom, et al., 2007), with the exception of sexual abuse the rates of abuse are similar for boys and girls (May-Chahal and Cawson, 2005). Therefore, abuse is unlikely to be sufficient to explain such a large epidemiological difference. Together, these biological and psychosocial models explain some of the gender difference in the prevalence of depression. It is the goal of Objectification Theory to add to our understanding of this phenomenon.

1.4 Gender differences in self-objectification

Objectification Theory was developed from feminist theory to explain the observation that women experience a number of psychological disorders at significantly higher prevalence than men. In doing so, they have drawn on the cultural experience of sexual objectification. It does not necessarily follow that the theory will apply to men, or, if it does, that it will apply in the same way. It may be that the construct works in a similar way in both sexes, and the gender difference is solely quantitative, reflecting the differing levels of exposure to objectifying experiences and material. Alternatively, it is possible that there is a qualitative difference between men and women in the mechanism of self-objectification and depression.
1.5 Aims of the review

While there is now a considerable research into Objectification Theory, there has not yet been a peer-reviewed systematic review of its role in depression. The primary aim of the current study is to undertake a systematic review of the utility of self-objectification as a predictor for depression. Our secondary aim is to determine the status of self-objectification as a candidate theory for the partial explanation of gender differences in depression.

2. Methods

2.1 Search Strategy

The aim of the search was to identify primary research studies that had measured self-objectification/body consciousness and depression in the same sample and where those measurements were analysed together. A review protocol was developed in accordance with the PRISMA statement (Moher, et al., 2009). Searches of PsycINFO, Medline, EMBASE and the Cochrane Library were conducted on August 18, 2013 using the terms 'objectif*' OR 'body conscious*' AND 'depressi*' OR 'dysthymi*' OR 'mood disorder'. No restrictions were imposed upon the results.

2.2 Inclusion and exclusion criteria

In the first phase of screening (abstracts) studies that met all of the following inclusion criteria were included:

1. English language;
2. inclusion of a depression measure, and;

3. inclusion of a measure of self-objectification/ body consciousness.

To be eligible for inclusion, measures of depression must have incorporated items specifically assessing depressive symptoms or depressive illness. Other unspecified measures of ‘mood’ were ineligible.

In the second round of screening (papers), studies were excluded if:

1. they did not examine the relationship between self-objectification and depression, and;

2. the data were reported in another paper already included in the review.

2.3 Data extraction

Information was extracted on sample size, population characteristics, outcome measures and main findings from each of the included studies.

2.4 Study selection

A total of 401 abstracts were returned from the initial search after the removal of duplicate articles (see Figure 2). Two raters independently reviewed the set, with papers that were unclear included in the second round. Raters agreed on the categorisation of 96% of the abstracts during the initial screening phase. Disagreements between raters were resolved through discussion. Of the original 401 abstracts, 50 non-English language studies were excluded, as were 22 studies without a measure of self-
objectification, and 256 studies that did not measure depression or self-objectification (this category included reviews and theoretical papers). This yielded a total of 73 potentially relevant studies for further assessment.

Full text papers and dissertations of the 73 studies were sourced and compared against the inclusion and exclusion criteria. This resulted in the exclusion of a further 32 papers (one due to non-English language, eight due to the absence of a depression measure, nine due to absence of self-objectification measure, and 12 due to the absence of both measures). A further three duplicate papers were excluded. The two raters agreed on the classification of 86% of the papers. Disagreements were resolved by discussion between the raters. Included papers were then hand-searched for additional relevant studies for inclusion, yielding one additional paper and a total of 42 papers. Finally, a further 10 papers included measures of self-objectification and depression but did not examine the relationship between them. After excluding these, a total of 31 studies were retained for inclusion in the systematic review (Figure 2).
3. Results

3.1 Study characteristics

All reviewed studies are summarised in Table 1. Of the included studies, 25 were conducted in the United States of America, three were conducted in Australia, one in Canada, one in Italy and one was conducted in two settings in Georgia and Switzerland. There were two prospective studies and the remaining 29 were cross-sectional observational studies. Twenty-three studies included only female participants in their sample, three included only males and five included both males and females. While the majority of studies recruited from university populations (n=15) there was greater diversity in settings than in other characteristics. A further seven studies recruited participants from community settings, four studies utilised both university and
community samples, three recruited participants through high-schools, one study recruited from both university and high-schools in a single area and one study recruited online. Twenty-four of the included studies included only adult participants, six included only adolescents and one study included both adults and adolescents.

For the purposes of this paper, we have organised the studies in each section into those that reported a mediated effect between self-objectification and depression, those that found a direct effect, and those that found a correlation between the two. This organisational strategy was selected as Objectification Theory explicitly predicts that the relationship between self-objectification and depression will be mediated by shame, anxiety, disrupted peak motivational states and lack of awareness of internal states. However, it must be noted that not all investigators tested this model explicitly, and none included all predicted mediators. With only two exceptions, all studies are cross-sectional and therefore cannot be used to make inferences about causality.
Table 1: Characteristics of the studies included in the review

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Design</th>
<th>N</th>
<th>Gender</th>
<th>Population</th>
<th>Country</th>
<th>Depression measure</th>
<th>Objectification measure</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burke</td>
<td>2002</td>
<td>Cross-sectional</td>
<td>219</td>
<td>Female</td>
<td>University students</td>
<td>USA</td>
<td>CES-D</td>
<td>SOQ, OBCS</td>
<td>Self-objectification did not predict depression; however, body shame and locus were significant predictors. Self-surveillance was positively correlated with depression.</td>
</tr>
<tr>
<td>Carr &amp; Szymanski</td>
<td>2011</td>
<td>Cross-sectional</td>
<td>289</td>
<td>Female</td>
<td>University students</td>
<td>USA</td>
<td>CES-D</td>
<td>OBCS</td>
<td>The relationship between self-surveillance and depression was mediated by body shame.</td>
</tr>
<tr>
<td>Chen &amp; Russo</td>
<td>2010</td>
<td>Cross-sectional</td>
<td>619 (256 males; 363 females)</td>
<td>Male and female</td>
<td>University students</td>
<td>USA</td>
<td>CES-D &amp; BDI-II</td>
<td>OBCS</td>
<td>Greater self-surveillance was associated with higher body shame and higher levels of depression. Body shame wholly mediated the relationship between self-surveillance and depression for both men and women. After controlling for body surveillance and body shame, gender was no longer a significant predictor of depression.</td>
</tr>
<tr>
<td>Choma et al.</td>
<td>2009</td>
<td>Cross-sectional</td>
<td>314</td>
<td>Female</td>
<td>University students</td>
<td>Canada</td>
<td>CES-D</td>
<td>SOQ</td>
<td>Greater self-objectification was associated with higher levels of depression. This relationship was partially mediated by body shame and body image coping strategies.</td>
</tr>
<tr>
<td>Cohen</td>
<td>2009</td>
<td>Cross-sectional</td>
<td>78 (34)</td>
<td>Male and</td>
<td>Adolescents</td>
<td>USA</td>
<td>CDI</td>
<td>SOQ</td>
<td>For females, body esteem was</td>
</tr>
</tbody>
</table>
Table 1: Characteristics of the studies included in the review

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<th>Depression measure</th>
<th>Objectification measure</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dakanalis</td>
<td>2012</td>
<td>Cross-sectional</td>
<td>255 (125 homosexual; 130 heterosexual)</td>
<td>Male</td>
<td>University/community</td>
<td>Italy</td>
<td>BDI-II</td>
<td>OBCS</td>
<td>Higher levels of self-surveillance were associated with higher levels of depression for both samples. This relationship was wholly mediated by body shame.</td>
</tr>
<tr>
<td>Evans</td>
<td>2011</td>
<td>Cross-sectional</td>
<td>269</td>
<td>Female</td>
<td>University students</td>
<td>USA</td>
<td>HDSQ</td>
<td>OBCS</td>
<td>Higher levels of self-surveillance were associated with higher levels of helplessness depression. The relationship was wholly mediated by body shame.</td>
</tr>
<tr>
<td>Grabe et al.</td>
<td>2009</td>
<td>Cross-sectional</td>
<td>195</td>
<td>Female</td>
<td>Adolescents</td>
<td>USA</td>
<td>CDI</td>
<td>OBC-Y</td>
<td>Self-surveillance predicted depression.</td>
</tr>
<tr>
<td>Grabe et al.</td>
<td>2007</td>
<td>Prospective</td>
<td>299 (141 males; 158 females)</td>
<td>Male and female</td>
<td>Adolescents</td>
<td>USA</td>
<td>CDI</td>
<td>OBC-Y</td>
<td>Self-surveillance at T1 predicted depression at T2 for females only. This relationship was mediated by body shame and rumination. Gender differences in self-surveillance precede gender differences in rumination and depression.</td>
</tr>
<tr>
<td>Grabe &amp; Jackson</td>
<td>2009</td>
<td>Cross-sectional</td>
<td>169 (60 males; 109 females)</td>
<td>Male and female</td>
<td>University students</td>
<td>USA</td>
<td>BDI</td>
<td>SOQ</td>
<td>White women had significantly higher levels of self-surveillance predicted depression.</td>
</tr>
</tbody>
</table>
### Table 1: Characteristics of the studies included in the review

<table>
<thead>
<tr>
<th>Author</th>
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<th>Population</th>
<th>Country</th>
<th>Depression measure</th>
<th>Objectification measure</th>
<th>Main findings</th>
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<tbody>
<tr>
<td>Haines et al.</td>
<td>2008</td>
<td>Cross-sectional</td>
<td>150</td>
<td>Female</td>
<td>Community</td>
<td>USA</td>
<td>CES-D</td>
<td>OBCS</td>
<td>Among lesbian women, self-surveillance predicted depression. The relationship was mediated by body shame.</td>
</tr>
<tr>
<td>Hallsworth et al.</td>
<td>2005</td>
<td>Cross-sectional</td>
<td>83</td>
<td>Male</td>
<td>University/ community</td>
<td>Australia</td>
<td>CES-D</td>
<td>SOQ/ OBCS</td>
<td>Higher levels of self-objectification predicted higher appearance anxiety, which in turn predicted higher levels of depression. Body building was associated with higher self-objectification than weight lifting or healthy controls.</td>
</tr>
<tr>
<td>Harrison &amp; Fredrickson</td>
<td>2003</td>
<td>Cross-sectional</td>
<td>374</td>
<td>Female</td>
<td>Adolescents</td>
<td>USA</td>
<td>CES-D</td>
<td>SOQ</td>
<td>Self-objectification positively predicted depression.</td>
</tr>
<tr>
<td>Hurt et al.</td>
<td>2007</td>
<td>Cross-sectional</td>
<td>282</td>
<td>Female</td>
<td>University/ community</td>
<td>USA</td>
<td>CES-D</td>
<td>OBCS</td>
<td>Self-surveillance positively predicted depression and was</td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Design</td>
<td>N</td>
<td>Gender</td>
<td>Population</td>
<td>Country</td>
<td>Depression measure</td>
<td>Objectification measure</td>
<td>Main findings</td>
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<tr>
<td>Impett et al.</td>
<td>2011</td>
<td>Prospective</td>
<td>587</td>
<td>Female</td>
<td>Adolescents</td>
<td>USA</td>
<td>CDI</td>
<td>AFIS</td>
<td>Controlling for a range of factors, decreases in objectification predicted decreases in depression over grades 8-12.</td>
</tr>
<tr>
<td>Kahumoku et al.</td>
<td>2011</td>
<td>Cross-sectional</td>
<td>6462 (2657 Georgian; 3803 Swiss)</td>
<td>Female</td>
<td>University/adolescents</td>
<td>Georgia/Switzerland</td>
<td>Bespoke measure</td>
<td>Bespoke measure</td>
<td>Objectification predicted mental health indicators among both Georgian and Swiss participants. For the Georgian sample, objectification predicted depression, however for the Swiss sample it predicted suicidal ideation.</td>
</tr>
<tr>
<td>Kopp</td>
<td>2008</td>
<td>Cross-sectional</td>
<td>351</td>
<td>Female</td>
<td>Community</td>
<td>USA</td>
<td>CES-D</td>
<td>SOQ/OBCS</td>
<td>Self-surveillance and self-objectification both positive predicted depression.</td>
</tr>
<tr>
<td>Miner-Rubino et al.</td>
<td>2002</td>
<td>Cross-sectional</td>
<td>98</td>
<td>Female</td>
<td>University students</td>
<td>USA</td>
<td>CES-D</td>
<td>Composite scale (SOQ/OBCS)</td>
<td>Self-objectification positively correlated with body shame, depression and neuroticism.</td>
</tr>
<tr>
<td>Mitchell &amp; Mazzeo</td>
<td>2009</td>
<td>Cross-sectional</td>
<td>641 (408 European Americans; 233 Asian Americans)</td>
<td>Female</td>
<td>University students</td>
<td>USA</td>
<td>CES-D</td>
<td>SOQ/OBCS</td>
<td>Positive relationship between ‘thin ideal’ (including self-objectification) and depression was mediated by body dissatisfaction.</td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Design</td>
<td>N</td>
<td>Gender</td>
<td>Population</td>
<td>Country</td>
<td>Depression measure</td>
<td>Objectification measure</td>
<td>Main findings</td>
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<tr>
<td>Muehlenkamp et al.</td>
<td>2002</td>
<td>Cross-sectional</td>
<td>396</td>
<td>Female</td>
<td>University students</td>
<td>USA</td>
<td>CES-D</td>
<td>OBCS</td>
<td>Direct path from self-surveillance to depression was significant, as was a mediated path through Internal Awareness.</td>
</tr>
<tr>
<td>Muehlenkamp et al.</td>
<td>2005</td>
<td>Cross-sectional</td>
<td>391</td>
<td>Female</td>
<td>University students</td>
<td>USA</td>
<td>CES-D</td>
<td>OBCS</td>
<td>The relationship between self-surveillance and depression was wholly mediated by negative body regard (including body shame, body attitude and comfort with touch).</td>
</tr>
<tr>
<td>Oehlhof</td>
<td>2011</td>
<td>Cross-sectional</td>
<td>413 (212 Normal weight; 201 Overweight)</td>
<td>Female</td>
<td>University students</td>
<td>USA</td>
<td>CES-D</td>
<td>SOQ</td>
<td>Internalised objectification predicted a range of psychosocial outcomes, including depression.</td>
</tr>
<tr>
<td>Peat &amp; Muehlenkamp</td>
<td>2011</td>
<td>Cross-sectional</td>
<td>214</td>
<td>Female</td>
<td>University students</td>
<td>USA</td>
<td>BDI-II</td>
<td>SOQ</td>
<td>The relationship between self-objectification and depression was wholly mediated by interoceptive awareness and anxiety</td>
</tr>
<tr>
<td>Rubin &amp; Steinberg</td>
<td>2011</td>
<td>Cross-sectional</td>
<td>163</td>
<td>Female</td>
<td>Community</td>
<td>USA</td>
<td>CES-D</td>
<td>OBCS</td>
<td>Self-surveillance positively predicted depression. This relationship was stronger for participants with high body awareness, and weaker for those with low body awareness.</td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Design</td>
<td>N</td>
<td>Gender</td>
<td>Population</td>
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<tr>
<td>Serpa</td>
<td>2004</td>
<td>Cross-sectional</td>
<td>192 (96 homosexual; 96 heterosexual)</td>
<td>Male</td>
<td>Community</td>
<td>USA</td>
<td>CES-D</td>
<td>SOQ/ OBCS</td>
<td>Self-surveillance predicted depression after controlling for sexual orientation. Self-surveillance scores were correlated with depression for homosexual, but not heterosexual men.</td>
</tr>
<tr>
<td>Szymanski &amp; Henning</td>
<td>2007</td>
<td>Cross-sectional</td>
<td>217</td>
<td>Female</td>
<td>University/community</td>
<td>USA</td>
<td>SDS</td>
<td>SOQ/ OBCS</td>
<td>Self-objectification predicted self-surveillance. The relationship between self-surveillance and depression was wholly mediated by flow, body shame and appearance anxiety. There were no direct relationships between either self-objectification and depression, or self-surveillance and depression.</td>
</tr>
<tr>
<td>Tiggemann &amp; Kuring</td>
<td>2004</td>
<td>Cross-sectional</td>
<td>286 (115 male; 171 female)</td>
<td>Male and female</td>
<td>University students</td>
<td>Australia</td>
<td>BDI</td>
<td>SOQ/ OBCS</td>
<td>For men, self-objectification predicted self-surveillance. The relationship between self-surveillance and depression was wholly mediated by appearance anxiety and flow. For women, self-objectification also predicted self-surveillance. However, the relationship between self-</td>
</tr>
</tbody>
</table>
Table 1: Characteristics of the studies included in the review

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Design</th>
<th>N</th>
<th>Gender</th>
<th>Population</th>
<th>Country</th>
<th>Depression measure</th>
<th>Objectification measure</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiggemann &amp; Williams</td>
<td>2012</td>
<td>Cross-sectional</td>
<td>146</td>
<td>Female</td>
<td>University students</td>
<td>Australia</td>
<td>SDS</td>
<td>SOQ/OBCS</td>
<td>Self-objectification predicted self-surveillance. The relationship between self-surveillance and depression was wholly mediated by body shame, appearance anxiety and flow. The model explained a far greater proportion of variance in depression for women than for men.</td>
</tr>
<tr>
<td>Todd</td>
<td>2007</td>
<td>Cross-sectional</td>
<td>198</td>
<td>Female</td>
<td>Community</td>
<td>USA</td>
<td>CES-D</td>
<td>OBCS</td>
<td>Relationship between self-surveillance and depression was wholly mediated by body shame and appearance anxiety.</td>
</tr>
<tr>
<td>Tolman et al.</td>
<td>2006</td>
<td>Cross-sectional</td>
<td>148</td>
<td>Female</td>
<td>Adolescents</td>
<td>USA</td>
<td>CDI</td>
<td>AFIS</td>
<td>When controlling for religiosity, ethnicity, SES and physical development, self-objectification positively predicted depression.</td>
</tr>
<tr>
<td>Woolley</td>
<td>2009</td>
<td>Cross-sectional</td>
<td>395</td>
<td>Female</td>
<td>University/Community</td>
<td>USA</td>
<td>CES-D</td>
<td>SOQ/OBCS</td>
<td>Relationship between self-objectification and depression</td>
</tr>
</tbody>
</table>
Table 1: Characteristics of the studies included in the review

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<tr>
<th>Author</th>
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<td>mediated by self-surveillance, body shame, appearance anxiety, flow and awareness of bodily states.</td>
</tr>
</tbody>
</table>
3.2 The relationship between self-objectification and depression in women

Of the 28 studies which incorporated data from female participants, only one study failed to find a relationship between self-objectification/self-surveillance and depression (Cohen, 2009).

The studies that found a significant relationship between self-objectification and depression employed a number of different statistical approaches and measurement instruments. The overwhelming majority of studies (n = 24) utilised a direct and/or mediated statistical model to predict depression scores from either psychological self-objectification scores, or its behavioural component (self-surveillance). The most common finding among these studies was a mediated relationship between depression and self-objectification/self-surveillance (n = 18), as predicted by Objectification Theory. By far the most common mediator was body shame as measured by the OBCS (n = 10). A high score on the OBCS Body Shame subscale indicates that a person believes that he/she is a bad person if they do not fulfil cultural expectations for their bodily appearance. Five studies found that the relationship between self-objectification and/or self-surveillance and depression was mediated by body shame alone (Carr and Szymanski, 2011; Chen and Russo, 2010; Evans, 2011; Haines, et al., 2008; Hurt, et al., 2007). A further six studies found that the relationship between self-objectification/self-surveillance and depression was mediated by body shame and other mediators (Choma, et al., 2009; Grabe, et al., 2007; Muehlenkamp, et al., 2005; Szymanski and Henning, 2007; Tiggemann and Kuring, 2004; Tiggemann and Williams, 2012). Appearance anxiety (n = 4; Szymanski and Henning, 2007; Tiggemann and Kuring, 2004; Tiggemann and Williams, 2012; Woolley, 2009) and body awareness (n = 3; Muehlenkamp and Saris-Baglama, 2002; Peat and Muehlenkamp, 2011; Rubin and
Steinberg, 2011) were also common mediators between self-objectification/self-surveillance and depression. Other mediators included body image coping strategies (Choma, et al., 2009), rumination (Grabe, et al., 2007), body dissatisfaction (Mitchell and Mazzeo, 2009), negative body regard (including body shame, body attitude and comfort with touch) (Muehlenkamp, et al., 2005), anxiety (Peat and Muehlenkamp, 2011), flow (Szymanski and Henning, 2007) and self-efficacy (Todd, 2007).

Many studies also found evidence for a direct effect of self-objectification on depression (n=10). The single prospective study in this group (Impett, et al., 2011) utilised multivariate latent growth curve modelling to investigate the relationship between changes in self-objectification, depression and self-esteem. The authors reported that decreases in self-objectification over the study period (Grades 8, 10 and 12) were associated with decreases in depression. Additionally, in a cross-sectional analysis of Grade 8 girls, they found that a high level of self-objectification was associated with poorer mental health outcomes, including higher depression symptomatology. Two studies found evidence for a partially mediated relationship between self-objectification and depression (Muehlenkamp and Saris-Baglama, 2002; Todd, 2007). In both cases, they used the behavioural component of self-objectification (self-surveillance/body shame). None of the other 7 studies that found a direct effect examined a mediational model, but instead only tested a direct relationship between self-objectification and depression. Of these, two studies (Harrison and Fredrickson, 2003; Oehlhof, 2012) explicitly investigated the relationship between self-objectification (using the SOQ) and depression. Both found a positive relationship, whereby increased objectification was associated with increased depression. Other studies used the behavioural measure of body surveillance from, the OBCS (n=5). All of these, studies reported a direct positive relationship between body surveillance and depression (Grabe and Hyde, 2009; Kahumoku, et al., 2011; Kopp, 2009; Rubin and
Steinberg, 2011; Tolman, et al., 2006). These findings are consistent across a range of samples, including adolescents (Grabe and Hyde, 2009; Harrison and Fredrickson, 2003; Impett, et al., 2011; Tolman, et al., 2006), new mothers (Kopp, 2009), university students (Muehlenkamp and Saris-Baglama, 2002; Oehlhof, 2012), women in the community (Rubin and Steinberg, 2011; Todd, 2007) and cross-cultural samples (Kahumoku, et al., 2011).

A further three studies found only a simple correlational relationship between self-objectification/ self-surveillance and depression. Of these, Burke (2002) found a correlational relationship between self-surveillance and depression; however, self-surveillance failed to predict depression after controlling for demographic and risk factors in an hierarchical regression model. The remaining studies reported only a simple correlational analysis and did not undertake multiple regression analyses to assess contribution of objectification to depression independently of other potential predictors (Grabe and Jackson, 2009; Miner-Rubino, et al., 2002). In all cases the reported correlations were positive indicating higher levels of self-objectification are associated with higher levels of depressive symptomatology. However, in each case the association between the two constructs was weak, the correlations ranging from \( r=0.14 \) (Burke, 2002) to \( r=0.34 \) (Grabe and Jackson, 2009).

### 3.3 The relationship between self-objectification and depression in men

Of the 32 studies, nine incorporated analyses involving men.

Of the studies that completed regression analyses, only one study found a direct predictive relationship between self-objectification and depression in men (Serpa, 2005) whereas four studies found evidence for a mediated relationship (Chen and Russo,
As was reported for women, body shame (Chen and Russo, 2010; Dakanalis, et al., 2012) and appearance anxiety (Hallsworth, et al., 2005; Tiggemann and Kuring, 2004) were the most common mediators of depression in men. Other mediators included body dissatisfaction (Hallsworth, et al., 2005) and flow (Tiggemann and Kuring, 2004).

Two reported a significant correlation between self-objectification and depression among men (Hallsworth, et al., 2005; Serpa, 2005). Serpa (2005) found a moderate correlation (r=0.43, p<0.001) between self-surveillance scores for homosexual men, but not heterosexual men. Hallsworth et al (2005) found a weak correlation between both objectification scores and self-surveillance scores, and depression among men (objectification r=0.20, p<0.05; self-surveillance = r=0.22, p<0.05). Both of these studies also completed regression analyses to assess the contribution of self-objectification to depression in the presence of other predictors.

Finally, three studies found no relationship between self-objectification and depression in men (Cohen, 2009; Grabe, et al., 2007; Grabe and Jackson, 2009).

### 3.4 The relationship between self-objectification and depression in adolescents

Seven studies examined the relationship between self-objectification and depression among adolescents. Only one study found no relationship (Cohen, 2009). One study (Grabe, et al., 2007), a prospective model, found that the relationship between self-objectification and depression was wholly mediated by body shame and
rumination. The authors also found a significant relationship over time, whereby self-objectification at Time 1, predicted depressive symptomatology at Time 2.

The remaining studies, all of which used modelling analyses, found a direct relationship between self-objectification and depression (Grabe and Hyde, 2009; Harrison and Fredrickson, 2003; Impett, et al., 2011; Kahumoku, et al., 2011; Tolman, et al., 2006). The other prospective study (Impett, et al., 2011) examined the extent to which changes in objectification over time predicted changes in depression status. Both these prospective studies and those involving only a single time point found that higher levels of self-objectification were associated with higher depressive symptomatology among adolescents.

The mean zero-order correlations among adolescents was 0.33, with a range of 0.17 (Cohen, 2009) to 0.54 (Tolman, et al., 2006). This compares with a somewhat lower mean of 0.21 and a range from 0.02 (Grabe and Jackson, 2009) to 0.43 (Serpa, 2005) among adults. This difference was statistically significant (U=59.5, z=-2.026, p<0.05, r=0.30), indicating that the correlation between the constructs differs in the two populations with a moderate effect size.

3.5 Differences between men and women

Five studies investigated both men and women with the same methodology. Findings were mixed. Three studies found similar results for men and women (Chen and Russo, 2010; Cohen, 2009; Tiggemann and Kuring, 2004). In particular, Cohen (2009) found no association between the target variables for men or for women. The other two concordant studies found a mediated relationship for both men and women (Chen and Russo, 2010; Tiggemann and Kuring, 2004). Chen and Russo (2010)
reported that for both men and women, body shame fully mediated the relationship between self-surveillance and depression. Indeed, after controlling for self-surveillance and body shame, gender was no longer a significant predictor of depression. Tiggemann and Kuring (2004) found that appearance anxiety was a common mediator for both men and women. However, the relationship between self-surveillance and depression was also mediated by flow for men, whereas for women, body shame was the second mediator. By contrast, two studies reported a different pattern of findings for men and women (Grabe, et al., 2007; Grabe and Jackson, 2009). The first (Grabe and Jackson, 2009) found a significant correlational relationship between self-objectification and depression only for women. The second, a longitudinal study, also failed to find any relationship between self-objectification and depression for males, whereas there was a significant mediated relationship for females (Grabe, et al., 2007).

Comparison of zero-order correlations between men and women indicate no significant differences between populations. This was true both when we examined only studies that included data for both males and females in the same model (U=17.5, z=-0.896, p>0.05) and when we included all studies (U=118.5, z=-1.73, p>0.05).

4. Discussion

4.1 Summary of evidence and discussion

Most studies included in this review found a significant relationship between self-objectification and depression. For women there is strong evidence that the two constructs co-vary. Across a range of methodological and statistical approaches, almost all studies found that increased levels of self-objectification were associated with increased levels of depressive symptomatology. In accordance with the predictions of
Objectification Theory, the most common finding was a mediated relationship between self-objectification and depression with body shame, appearance anxiety and/or body awareness as mediators. There is insufficient evidence to determine whether there is a causal relationship between high self-objectification and increased depression over time. However, the two longitudinal studies which investigated this question found a positive predictive relationship. While these early longitudinal results are promising, further research of this type is required to confirm the findings of the prospective studies and to examine if the causal relationship between self-objectification and depression is present among other populations. Future research into risk-factors of depression among women should include self-objectification as a predictor.

In studies of men the evidence is not as strong, although a slight majority of studies found a significant positive relationship between the two constructs. Again, the most common finding was a mediated relationship with body shame and appearance anxiety as mediators. At the outset we asserted that, as Objectification Theory was grounded in feminist perspectives, it may not apply to men in the same way as it applies to women. The studies in this review provide evidence to suggest that Objectification Theory may be applicable across genders. However, given the small number of studies that included male participants, and the greater variability in findings from these studies than for women, it is clear that further research on the applicability of Objectification Theory for men is warranted. Further, it is unclear from the findings whether the studies that were discordant for men and women were so because of cultural differences in exposure to objectifying material, or gender differences in the processing of such material. Examination of the zero-order correlations suggests that the difference between the genders may be one of variation in quantitative exposure to objectifying material and experiences, as there was no significant difference in the strength of the association between the constructs between men and women. The fact that men largely
had positive correlations albeit not always statistically significant raises the possibility that objectifying environments may negatively impact on the mental health of men. Future experimental research in this area may help to determine points of difference between men and women.

Adolescence is a particularly important time with regard to gender differences in depression and body image concerns, given that it is at this time that the differences emerge. Most of the studies that involved adolescent data found a direct relationship between self-objectification and depression. Again, there are only a small number of studies included in this subset; however, there is almost no variability in the findings. This suggests that the adolescent experience of self-objectification and depression differs from that of adults. The fact that zero-order correlations were higher than those observed in adults indicates that Objectification Theory has the potential to explain gender differences in depression at the very time point at which they diverge. These results may help us to understand why girls experience a greater incidence of depression than boys in early-to-mid adolescence.

The findings from this review have implications for researchers, clinicians and policy-makers alike. Researchers investigating depression, particularly in women or adolescents, may benefit from including a measure of self-objectification in their models. This may contribute to the construction of a more accurate model of gender differences in the prevalence of depression and add to our understanding of the costs of a culture that objectifies women and girls. It might be advisable for clinicians working with adolescent girls to pay particular attention to how the client relates to her body and how this impacts upon her individual circumstances. As Objectification Theory predicts not only depression, but also eating disorders, anxiety and sexual dysfunction, investigation of objectification upon the initial clinical presentation of depression may
help prevent the development of other mental health problems. Lastly, policy-makers may consider the very high costs of mental ill-health on our wider community and the impact of objectifying material as a health hazard.

4.2 Limitations of the studies

There are a number of limitations to the studies included in the review. Firstly, the samples were generally homogeneous and largely comprised American undergraduate students of Caucasian background. Thus the samples were neither representative of citizens of the USA, nor of the wider Western or non-Western cultures (Henrich, et al., 2010). As discussed previously, gender differences in depression have been found across many cultures and therefore attempts to explain this phenomenon must take into account all cultures. In Western cultures we assume that objectification is primarily derived from objectifying images of women in popular media, and that it disproportionately affects Caucasian women (e.g. Harrison and Fredrickson, 2003; Overstreet, et al., 2010). In this context the unrepresentative sample may not be problematic for the purposes of examining the mechanisms of self-objectification and its impacts on mood. However, it may present a worst-case scenario by targeting those who are most affected and therefore may be less applicable across culturally and linguistically diverse populations. When measured across different cultural groups, the impact of objectification on depression may be lessened. However, Objectification Theory also posits that objectifying interpersonal interactions can have the same effect as media representations of objectifying material. It is possible that this may be a factor for women in cultures with less media saturation. Regardless, further research into culturally diverse groups is warranted.
A further limitation common to most studies included in this review is their cross-sectional design. While many authors have conducted modelling analyses, causal inferences cannot be made in the absence of temporal data. One of the longitudinal studies found evidence for a causal relationship, whereby higher levels of self-objectification led to increased levels of depression at a later time. However, these two studies have not yet been replicated. While we can conclude from the studies reviewed in this paper that self-objectification and depression co-vary, we are unable to ascertain causality. It is possible that high levels of depressive symptomatology precede self-objectification although the one study that investigated this possibility did not find an association. Further work investigating these variables over time needs to be conducted to investigate questions of causality.

Lastly, most studies reviewed have failed to include common risk factors for depression in their modelling. Risk factors such as a personal or family history of depression and comorbidity often explain a significant proportion of the variance in depression (Holzel, et al., 2011). For example, Burke (2002) included personal and family history of depression in the model and found that after these and demographic variables were entered, self-objectification did not significantly contribute to the model. In this case it is possible that collinearity between past and current depression status with self-objectification was masking the effect of self-objectification. Regardless, known risk factors should be included in the modelling process, to ensure that the conclusions from self-objectification and depression studies do not yield spurious findings due to a failure to control for factors associated with, rather than attributable to, self-objectification.
4.3 Limitations of the systematic review

It is a limitation of the current review that it does not include a quantitative synthesis of the results. We have chosen not to conduct a meta-analysis because the included studies are observational rather than experimental, and are significantly heterogeneous. Meta-analyses of observational data can lead to misleading conclusions due to heterogeneity and confounding factors (Egger, et al., 2001).

5. Conclusion

This is the first systematic review to investigate the utility of Objectification Theory as a predictor for depression and as a candidate to partially explain the gender difference in the prevalence of depression. The review provides evidence in support of Objectification Theory and in particular of the hypothesis that objectification may be an important predictor of depression, particularly among women and adolescents. While there have been limited studies in men, early indications are that Objectification Theory may also have utility in explaining depression in this population with further research warranted to investigate this question. Lastly, Objectification Theory may also contribute to explaining the gender difference in prevalence of depression that persists across cultures.
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A test of Objectification Theory including mental health indicators.

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**Foreword**

Previous work in the field of Objectification Theory has largely focused on verifying the accuracy of the model, namely that self-objectification leads to depression and disordered eating mediated by body shame and anxiety. Accordingly these studies have typically focused only on self-objectification and related constructs, such as body shame. These studies have found consistent support for the theoretical model. The current paper extends this work by looking not only at the model proposed by the theory, but also positioning self-objectification within the broader context of risk factors and predictors for depression and disordered eating.
Abstract

Objectification theory postulates that exposure to sexually objectifying images and experiences can cause women to observe themselves as objects. Self-objectification, as this process is known, is theorised to result in a range of negative outcomes including depression and disordered eating. Previous research on self-objectification as a predictor of depression and disordered eating has typically failed to take into account other risk factors for psychopathology. The current study investigated the role of self-objectification in depression and disordered eating after controlling for known predictors of these conditions. Participants were 260 community volunteers who were recruited online and completed an online survey anonymously. The survey included measures of depression, disordered eating, self-objectification, body shame, anxiety, self-esteem, wellbeing, resilience, and familial history of depression and other mental illness. We found that self-objectification was not a unique predictor of depression after controlling for other predictors. However, self-objectification was a strong independent predictor of disordered eating. Secondary mediation analysis found that body shame mediated the relationship between self-objectification and eating disorder providing support for Objectification Theory. We conclude that self-objectification may be an important modifiable factor in the aetiology of disordered eating. Further research in adolescence is required to investigate the role of self-objectification in depression.

Keywords: depression, self-objectification, disordered eating
1. Introduction

Objectification Theory (Fredrickson & Roberts, 1997) was developed from feminist perspectives to explain the large gender differences in depression, disordered eating and sexual dysfunction. Objectification is the process whereby an individual’s body or parts of their body are representative of their person. According to the theory, there are a number of ways in which people can be objectified. Firstly, objectification can occur through direct interpersonal interactions, such as unwanted sexual advances or sexual harassment. Secondly, objectification can occur through media portrayals of objectifying interactions. For example, the viewer may be exposed to a television program or advertisement in which a woman is treated like an object. Lastly, and of particular concern, the viewer may be placed in the position of objectifier. For example, it may not be possible to view advertising images which focus on the breasts or buttocks of women - often excluding the head - in any way that does not objectify the model. These images are ubiquitous and teach the public to objectify women.

The authors of Objectification Theory argue that as women mature in an objectifying environment, they may begin to internalise the sexually objectifying gaze and turn it upon themselves. The authors further argue that the process of scanning one’s appearance to compare it to the sexualised ideal is inherently damaging. According to the theory, the outcome of the evaluation, that is, whether the individual is satisfied with their appearance or not, is immaterial.

There are a number of mechanisms by which this objectification process is said to generate negative outcomes. Firstly, women experience shame when they fail to live up to a cultural ideal. Exacerbating the distress associated the woman’s feelings of failure to conform to the ideal are the negative emotions associated with the public nature of that failure. Secondly, the authors of Objectification Theory propose that
women will experience two different types of anxiety. In particular the authors argue that women may feel anxious about their appearance and about the unpredictability of when they may be subjected to an objectifying experience. Thirdly, they argue that due to a redeployment of attentional resources to appearance-based concerns women will experience interruptions in peak motivational states. These are times when people are completely absorbed in the task at hand and are unselfconscious. These states may be associated with wellbeing. Lastly, it is argued that as a result of the process of objectification women may to experience dissociation from internal bodily cues. With attentional resources deployed on appearance, there are fewer opportunities for women to recognise bodily cues such as hunger or sexual arousal. The result of these processes, the Objectification theorists argue, is an increase in depression, disordered eating and sexual dysfunction.

Some research has investigated the relationship between self-objectification and depression. A recent systematic review of self-objectification and depression (Swim, Cohen, & Hyers, 1998) undertaken by the current authors found evidence in support of Objectification Theory for women and adolescents but no evidence in support of the model for men. However, many of the included studies failed to include common risk factors, such as familial history (Levinson, 2006) and resilience (Southwick, Vythilingam, & Charney, 2005), thereby potentially inflating the role of self-objectification in the development of depression.

To our knowledge there are no published systematic reviews investigating the association between self-objectification and eating disorder, a narrative review (Tiggemann, 2011) of the topic found evidence in support of objectification theory. Studies have found evidence of a role for self-objectification in disordered eating among children (Herbenick, Schick, Reece, Sanders, & Fortenberry, 2010), bisexual women
(Brewster et al., 2014), gay men (Dakanalis et al., 2012), culturally and linguistically
diverse populations (Kim, Seo, & Baek, 2014), and undergraduates (Tiggemann &
Williams, 2012). In each of these studies, however, the authors failed to take into
account the effects of common risk factor for psychological morbidity. As with the
depression literature, the role of self-objectification may be overstated due to the
exclusion of these other risk factors. Accordingly, the current study investigated the
relationship between self-objectification and depression and disordered eating in men
and women, controlling for a number of common risk factors.

Included in the original model were the following risk factors: wellbeing,
resilience, self-esteem, fam history, gender. The gender difference in prevalence of
depression is one of the most well demonstrated findings in the epidemiology of
depression (Kessler, 2003). Being of female gender is a major risk factor for depression.
Similarly, the familial link between mental illnesses is well established (Sullivan, Neale,
& Kendler, 2000).

The aims of the study were as follows:

- to identify if self-objectification explains variance in depression and
disordered eating over and above known risk factors such as familial history and
resilience; and,

- to determine if Objectification Theory is applicable to both men and
women.

Based upon the predictions of Objectification Theory we hypothesised that:
• Self-objectification will make a unique contribution as a predictor of depression over and above known risk factors; and,

• Self-objectification will make a unique contribution as a predictor of disordered eating over and above known risk factors; and,

• There will be no gender differences in the role of self-objectification as a predictor of depression and disordered eating.

2. Methods

Participants

Participants were 260 men and women from the general community recruited via Facebook. The majority of these participants were female (n = 199; 76.5%). The mean age of participants was 36.9 years (SD = 10.9), ranging from 18 to 73 years. Most participants were from Australia (91.2%), and 12 countries were represented in the sample. The sample was highly educated, with 57.7% holding a tertiary education of a Bachelor degree or above. This is well above the Australian national figures for degree qualifications of 30% (Australian Bureau of Statistics, 2011). Of the women, 88.4% identified as heterosexual, 3.0% as lesbian and 7.5% as bisexual. In men the distribution was similar, with 88.3% identifying as heterosexual, 3.3% gay and 5.0% bisexual. Among female participants, 41.2% were nulliparous.

Measures

Depression: Center for Epidemiologic Studies – Depression (CES-D) (Szymanski & Feltman, 2014). This is a widely-used self-report measure of the severity of depressive symptoms. The CES-D has excellent psychometric properties (Radloff, 1977). It comprises 19 items, such as ‘I felt that everything I did was an effort’. Each
item is scored on a 4-point scale with higher scores indicating higher symptomatology. In the current study the internal reliability (Cronbach’s alpha) of this instrument was 0.73

**Disordered eating:** Eating disorder Screen for Primary care (ESP) (Zwier, 2014). This 4-item self-report measure is a reliable screening instrument for eating disorder. Each item is rated on a dichotomous scale (yes or no) by the respondent. An example of an ESP item is: ‘Are you satisfied with your eating patterns?’ Higher scores on the ESP indicate higher symptomatology, with a cutoff of two abnormal responses being indicative of probable disorder. Internal reliability (Cronbach’s alpha) in the current study was 0.67.

**Anxiety:** Generalized Anxiety Disorder Screener (GAD-7) (DeMaria, Hollub, & Herbenick, 2012). This is a 7-item self-report measure of generalised anxiety. It has adequate psychometric properties in the general population (Lowe et al., 2008). Each item is rated on a 4-point scale (‘Not at all’ to ‘Nearly every day’) and includes items such as ‘over the last two weeks how often have you been bothered by being so restless that it is hard to sit still?’ Higher scores indicate higher symptoms of generalised anxiety. In this study, the internal reliability as measured with Cronbach’s alpha was 0.91.

**Self-objectification and body shame:** Objectified Body Consciousness Scale (OBCS) (McKinley & Hyde, 1996). This measure is widely used among both men and women. It has adequate psychometric properties in women (McKinley & Hyde, 1996) but it has not yet been validated in men. All items are scored on a 7-point scale (‘Strongly disagree’ to ‘Strongly agree’). Higher scores indicate higher levels of self-surveillance and body shame. Self-surveillance items include ‘I rarely think about how I look’, whereas body shame is assessed with items such as ‘When I can’t control my
weight, I feel like something must be wrong with me.’ The internal reliability (Cronbach’s alpha) of the self-surveillance subscale was 0.84, and the reliability for the body shame subscale was 0.82 in the current study.

**Wellbeing:** Mental Health Continuum - Short Form (MHC-SF) (Schick, Calabrese, Rima, & Zucker, 2010). We assessed wellbeing in recognition that mental wellness involves not only the absence of symptoms, but also the presence of positive functioning. The MHC-SF displays adequate and stable properties (Lamers, Westerhof, Bohlmeijer, Klooster, & Keyes, 2011). It consists of 14 items, such as ‘During the past two weeks, how often did you feel interested in life?’ Each item is scored on a 6-point scale from ‘Never’ to ‘Every day’. The internal reliability (Cronbach’s alpha) of this instrument was 0.94 in the current study.

**Resilience:** Connor-Davidson Resilience Scale (CDRISC) (Oswald, Franzoi, & Frost, 2012). This is a widely-used and psychometrically sound self-report instrument (Connor & Davidson, 2003). Each self-report item of the CD-RISC (e.g. ‘I am able to adapt when changes occur’) is scored on a 4-point scale between ‘Not true at all’ and ‘True nearly all the time’. The internal reliability of this scale (Cronbach’s alpha) was 0.92 in the current study.

**Self-esteem:** Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965). This is the most widely used measure of self-esteem. The 10-item self-report scale is scored between 1 (‘Strongly agree’) and 4 (‘Strongly disagree’). An example item is ‘At times I think I am no good at all’. The internal reliability (Cronbach’s alpha) of the measure in the current study was 0.92.

**Familial history of depression and other mental illness** was measured with a single self-report item scored in a dichotomous category. Respondents were asked
whether anyone in their family had ever experienced depression (yes, no), and whether they had experienced any other mental illness (yes, no).

**Gender** was measured using a single-item self-report.

**Procedure**

A social media profile on Facebook (www.facebook.com/vulvatak) was used to recruit participants. In addition, advertisements were deployed on Facebook targeting people over 18 years. The advertisements contained text such as “ANU survey on cosmetic surgery, adult material and mental health. Participate now!” and “ANU survey on explicit material and mental health. Participate now!” Facebook advertising rules prohibit the use of the word ‘pornography’ and therefore the euphemisms “adult material” and “explicit material” were included. We also posted seven reminders over the recruitment period for participants to complete the survey and share the page to aid recruitment. Additionally, participants were recruited from a mailing list created for people who were interested in following the lead author’s research. The mailing list was created during a pilot study into genital satisfaction (Jones & Nurka, in press). This list was emailed once only, with e-mail communication containing the Facebook page link and a link directly to the survey. Participants were also able to email the links to their contacts, thereby allowing those without a Facebook profile to complete the questionnaire.

Clicking on the survey link directed participants to an information page. This page included general information about the questionnaire including estimated completion time, general content and perceived risks. Two screening items were included on this page. Potential participants were required to indicate their willingness to participate in the research and to confirm that they were over 18 years before being
progressed to the first survey question. Submission of a completed survey constituted consent. Questionnaire responses were completed anonymously. The IP address, time of completion and referring URL were not recorded in the survey data. Submission dates were invalidated ensuring there could be no alignment between webserver logs and response data. Due to these measures, participants were unable to withdraw permission after survey submission, as it was not possible to identify an individual’s responses.

Analyses

We conducted separate analyses for depression and disordered eating outcome measures. Regression analyses were conducted using SPSS 22 ("IBM SPSS Statistics for Windows," 2013) and mediation analyses were conducted with the macro PROCESS (Hayes, 2013). We conducted backwards stepwise multiple regression analyses to determine the contribution of self-objectification to depression and disordered eating when controlling for other predictors. All variables were entered initially in a forced entry method and removed if they did not contribute significantly to the model.

3. Results

There were no issues with multicollinearity within the data (VIF 1.13-3.24) and no other assumptions were violated. Mean depression scores were 20.56 (SD = 7.37), and mean disordered eating scores were 1.85 (SD = 1.28) (Table 1). The primary variable of interest, self-objectification was significantly associated with all predictor variables and outcomes (Table 1). Self-objectification was moderately associated with gender, depression, anxiety, wellbeing, resilience and self-esteem. It also had a strong
significant association with disordered eating. There was a weak but significant association with family history of mental illness.
Table 1: Means, standard deviations and zero-order intercorrelations.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Gender</th>
<th>Depression</th>
<th>Disordered eating</th>
<th>Anxiety</th>
<th>Self-objectification</th>
<th>Body shame</th>
<th>Wellbeing</th>
<th>Resilience</th>
<th>Self-esteem</th>
<th>Family History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</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>Depression</td>
<td>20.56</td>
<td>7.37</td>
<td>.06</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Disordered Eating</td>
<td>1.85</td>
<td>1.28</td>
<td>.30**</td>
<td>.30**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Anxiety</td>
<td>5.03</td>
<td>5.00</td>
<td>.04</td>
<td>.67**</td>
<td>.27**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self-objectification</td>
<td>33.63</td>
<td>9.70</td>
<td>.30**</td>
<td>.30**</td>
<td>.52**</td>
<td>.37**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Body shame</td>
<td>27.07</td>
<td>10.03</td>
<td>.22**</td>
<td>.30**</td>
<td>.57**</td>
<td>.36**</td>
<td>.62**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wellbeing</td>
<td>45.25</td>
<td>14.21</td>
<td>.05</td>
<td>-.50**</td>
<td>-.32**</td>
<td>-.52**</td>
<td>-.30**</td>
<td>-.39**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Resilience</td>
<td>27.87</td>
<td>7.10</td>
<td>-.01</td>
<td>-.49**</td>
<td>-.30**</td>
<td>-.57**</td>
<td>-.33**</td>
<td>-.38**</td>
<td>.65**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>29.35</td>
<td>6.14</td>
<td>-.09</td>
<td>-.40**</td>
<td>-.40**</td>
<td>-.54**</td>
<td>-.46**</td>
<td>-.57**</td>
<td>.71**</td>
<td>.70**</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Family history</td>
<td>-</td>
<td>-</td>
<td>.15*</td>
<td>.09</td>
<td>.10</td>
<td>.09</td>
<td>.15*</td>
<td>.09</td>
<td>-.03</td>
<td>-.05</td>
<td>-.04</td>
<td>-</td>
</tr>
</tbody>
</table>

* P<0.05; **p<0.01
The initial step in the backwards stepwise multiple regression analysis included all predictors: gender, family history of mental illness, family history of depression, anxiety, wellbeing, resilience, self-esteem self-surveillance and body shame. Self-objectification was excluded at the second step, resilience at the third, family history of depression in the fourth step, body shame in the fifth and gender in the sixth step. The seventh and final model included only family history of mental illness, anxiety, wellbeing and self-esteem ($F (4,255) = 62.29, p<.001, R^2 = 0.49$). There was no significant change in $R^2$ across each of the steps (Table 2). As self-objectification (self-surveillance) did not contribute significantly to the model, no further analyses were conducted.

Table 2: Excluded variables and change in $R^2$ with depression as outcome variable.

<table>
<thead>
<tr>
<th>Step</th>
<th>Excluded variable</th>
<th>$R^2$ (change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>.50 (-)</td>
</tr>
<tr>
<td>2</td>
<td>Self-surveillance</td>
<td>.50 (-)</td>
</tr>
<tr>
<td>3</td>
<td>Resilience</td>
<td>.50 (-)</td>
</tr>
<tr>
<td>4</td>
<td>Family history of depression</td>
<td>.50 (-)</td>
</tr>
<tr>
<td>5</td>
<td>Body shame</td>
<td>.50 (-)</td>
</tr>
<tr>
<td>6</td>
<td>Gender</td>
<td>.49 (-.001)</td>
</tr>
</tbody>
</table>

* P<.05; ** p<.01; *** p<.001
Disordered eating

The initial variables included in the model were family history of depression, family history of other mental disorders, gender, anxiety, depression, wellbeing, resilience, self-esteem, self-objectification and body shame (Table 3). Family history of depression was excluded in the second step, resilience in the third, self-esteem was excluded in the fourth step, family history of mental illness in the fifth, anxiety in the sixth and depression in the seventh. The eighth and final model included only gender, wellbeing, self-objectification and body shame as the only significant predictors ($F(4,255) = 42.34, p<.001; R^2 = .40$).

Table 3: Excluded variables and change in $R^2$ with disordered eating as outcome variable.

<table>
<thead>
<tr>
<th>Step</th>
<th>Excluded variable</th>
<th>$R^2$ (change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>.41 (-)</td>
</tr>
<tr>
<td>2</td>
<td>Family depression</td>
<td>.41 (-)</td>
</tr>
<tr>
<td>3</td>
<td>Resilience</td>
<td>.41 (-)</td>
</tr>
<tr>
<td>4</td>
<td>Self-esteem</td>
<td>.41 (-)</td>
</tr>
<tr>
<td>5</td>
<td>Family mental health</td>
<td>.41 (-)</td>
</tr>
<tr>
<td>6</td>
<td>Anxiety</td>
<td>.40 (-.01)</td>
</tr>
<tr>
<td>7</td>
<td>Depression</td>
<td>.40 (-)</td>
</tr>
</tbody>
</table>
Mediation Analysis

According to Objectification Theory, self-objectification leads to disordered eating through a mediational model with body shame as a mediator. To test this theoretical model, we conducted a conditional process analysis using PROCESS (Jones & Nurka, in press).

The primary model included self-objectification as the predictor, body shame as the mediator and disordered eating as the outcome variable. We included wellbeing as a covariate because it is not a named predictor in Objectification Theory. Gender was initially included as a potential moderator between self-objectification and body shame (Figure 1). However, as gender was not a significant moderator, we subsequently removed it as a moderator and included it as a covariate (Figure 2). The analysis supported the theoretical model that body shame mediates the relationship between self-objectification and disordered eating (an indirect effect). The indirect effect was tested via the bootstrapping technique using 5000 samples with 95% confidence intervals. Self-objectification had a significant positive indirect effect on disordered eating (.03 [.01,.04]). The final model explained 40% of the variance in disordered eating (Table 4).
Figure 1: Conditional Process Model with gender as moderator (* P<.05; ** p<.01).

Table 4: Mediation analysis

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Coeff.</th>
<th>SE</th>
<th>p</th>
<th>Coeff.</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Shame</td>
<td></td>
<td></td>
<td></td>
<td>Disordered eating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-objectification</td>
<td>.55</td>
<td>.05</td>
<td>&lt;.001</td>
<td>.03</td>
<td>.01</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Wellbeing</td>
<td>-.17</td>
<td>.03</td>
<td>&lt;.001</td>
<td>-.01</td>
<td>.01</td>
<td>.02</td>
</tr>
<tr>
<td>Gender</td>
<td>1.66</td>
<td>1.16</td>
<td>&lt;.001</td>
<td>.48</td>
<td>.15</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Body Shame</td>
<td></td>
<td></td>
<td></td>
<td>.05</td>
<td>.01</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Constant</td>
<td>15.00</td>
<td>2.68</td>
<td>&lt;.001</td>
<td>-.17</td>
<td>.37</td>
<td>.66</td>
</tr>
</tbody>
</table>

R²=0.44  R²=.40

F (3,256)=67.24,  F(4,255)=42.34,

p<.001  p<.001
4. Discussion

Objectification Theory predicts that both depression and disordered eating are a result of an indirect effect of self-objectification mediated by body shame (among other factors). The current data supported the predictions of Objectification Theory in the case of disordered eating, with the statistical model indicating that self-objectification and body shame were the primary predictors of disordered eating. There was also a significant bivariate association between self-objectification and depressive symptoms in the current sample. However, there was no support for Objectification Theory for depression after removal of the effects of demographic and other risk factors.
Our finding that self-objectification predicts disordered eating when controlling for other risk factors significantly strengthens the claims of Objectification Theory. Previous work has largely ignored other risk factors, focusing exclusively on self-objectification and related constructs. However, the current work indicates that self-objectification may indeed be an important predictor and should be included in future models of disordered eating.

It is of note that although gender was a significant predictor of disordered eating, it did not have a moderating effect on self-objectification. As Objectification Theory was posited solely in explanation of female psychopathology, it does not address the issue of gender differences in the mechanism of self-objectification. We found no evidence in the current study that self-objectification led to different outcomes for men. It is possible that any gender differences that exist in disordered eating are a result of differential exposure to objectifying material, rather than systematic differences in the effects of such experiences.

Self-objectification theory holds that depression is a consequence of self-objectification. Our recent systematic review (Jones & Griffiths, 2015) provided support for this hypothesis as does the bivariate data in the current study. However, in the current study the effect was not statistically significant after controlling for other risk factors, and accordingly raises questions about the role of self-objectification in the development of depression and the validity of previous research which relied primarily on models that did not take into account the potential role of other risk factors for depression in the findings.

Adolescence may be a particularly important time in the aetiology of depression, as it is at this time that the gender divergence in rates of depression emerges. After this period, the frequency and length of episodes and the chronicity of the illness are
remarkably similar over the life courses for the sexes. The antecedents of the ongoing higher annual prevalence of depression among women can be found in the higher incidence of first episodes in adolescence. It is possible therefore that a study similar to the current investigation but undertaken with adolescent participants may find that self-objectification contributes to variance in depression over and above common predictors. However, in this adult sample, there is no evidence that self-objectification is a unique predictor of depression.

Limitations

Caution must be exercised when interpreting this regression model, as there was insufficient data to replicate the results. While the variance inflation factors indicated that there were no issues with multicollinearity, the correlation between depression and anxiety was 0.67. Accordingly, there may be some issues associated with shared variance. As the sample was highly educated, the findings may not be generalizable to other populations.

5. Conclusion

This study found support for a significant role for self-objectification and body shame in the development of disordered eating, as predicted by Objectification Theory even after controlling for other risk factors for eating disorder. There is no evidence that the mechanisms differ between the sexes, for disordered eating. The findings suggest that it is important to develop, implement and evaluate interventions designed to reduce self-objectification among members of the public and particularly young people. Such interventions might be delivered via the Internet allowing access by a large number and broad range of people. The current study found no evidence that self-objectification contributed uniquely to the development of depression in adults.
However, our previous systematic review (Jones & Griffiths, 2015) concluded that adolescence may be a time of critical importance in the development of self-objectification and depression. In particular, self-objectification may peak in early adolescence – at a point that precedes the gender divergence in prevalence of depression. Accordingly prospective research is required to investigate if self-objectification independently contributes to the development of depression in adolescence and to determine if interventions designed to reduce self-objectification in young people can contribute to reducing morbidity due to depression as well as eating disorder.
References


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The role of pornography and mental health indicators in genital satisfaction and vulvar preference in a community sample.

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Foreword

This paper constitutes a follow-up and extension of the work presented in Paper 2. In the previous study, the role of pornography in genital satisfaction was modelled in the absence of other predictors in accordance with the Porn Thesis. That model explained only 4% of the variance in genital satisfaction, indicating a need for the inclusion of other predictors. In the current paper we have included a range of potential predictors drawn from the extant literature on acceptance of cosmetic surgery and body image. This study represents the first comprehensive test of the Porn Thesis. Again, our results do not support the Porn Thesis, although we have identified avenues for future research including self-objectification and conservatism.
Abstract

The current paper tests the hypothesis that pornography is the main, or only driver of labiaplasty. This model, that we have termed the Porn Thesis, proposes that women observe pornography, compare their vulvas with those represented therein, become dissatisfied with their own vulvar morphology and seek labiaplasty to redress the issue. However, this model stems from theoretical rather than empirical bases. A total of 260 participants from the community anonymously completed an online survey incorporating measures of genital satisfaction, openness to labiaplasty, and their potential predictors including pornography consumption, self-objectification, mental health status and other psychological variables. The labiaplasty data was not suitable for analysis due to low endorsement of the surgery. A backwards stepwise multiple regression indicated that genital satisfaction was independently predicted by age, conservatism, self-objectification, resilience and sexist events. Contrary to the Porn Thesis pornography consumption was not a significant predictor of genital satisfaction. Nor did depressive or anxiety symptoms, or exposure to negative genital comments predict genital dissatisfaction. Self-objectification was the only modifiable factor. The identification of self-objectification as a strong predictor of genital satisfaction has implications for clinicians and policy-makers. As a modifiable factor that is implicated in the aetiology of depression and disordered eating, interventions targeting this construct may have wide-reaching benefits to the community.

Key words: pornography, genital satisfaction, mental health
1. Introduction

Popular media accounts assert that an enormous number of women undergo labiaplasty, and that the popularity of the procedure is driven by penetration of pornography or its aesthetics into the mainstream media landscape (Drysdale, 2010; Jacob, 2013; Newton, 2012). Typically, the narrative is linear whereby it is assumed that pornography consumption causes genital dissatisfaction which in turn results in subsequent labiaplasty. It is usually argued that as pornography is the only source of images of vulvas, and as these images are heavily edited, they are responsible for the recent increase in labiaplasty. The theory is usually confirmed by the assumed correlation between increases in labiaplasty and the increasing availability of pornography via the Internet. Although this narrative, that we have termed the ‘Porn Thesis’ (Jones & Nurka, in press) is predominant in the popular literature, it is also widespread in the academic literature (Braun, 2005; Green, 2005; Koning, Zeijlmans, Bouman, & Lei, 2009; Plowman, 2010; Rodrigues, 2012; Schick, Rima, & Calabrese, 2011). Although apparently presenting a reasonable proposition, there are some serious issues with this theory.

Firstly, the number of labiaplasty surgeries is not necessarily increasing at the rate reported. Typically, raw figures are used to justify claims of dramatic increase; however, this is insufficient to ascertain whether demand is growing. In order to determine if labiaplasty is indeed becoming more popular, it would have to be established that growth in demand exceeded growth in the population. Moreover, to establish if the growth is specific to labiaplasty, it is necessary to compare labiaplasty growth with that for the cosmetic surgery sector more broadly. Industry figures from the USA indicate that while there has been an increase in the numbers of genital cosmetic surgery procedures, this has not exceeded growth in the cosmetic surgery
sector (American Society for Aesthetic Plastic Surgery, 2007, 2008, 2009, 2010, 2011, 2012). In Australia the public health figures show dramatic increases in labiaplasty rates (Department of Human Services; Department of Human Services), but without corresponding data from the private sector, it is not possible to determine if this growth reflects an overall trend to greater labiaplasty rates. It is possible that women are increasingly moving from the private to the public system, thereby deflating the total growth. The recent increase in online forums allows women to share information including that which will maximise their chances of being accepted into the public system (Zwier, 2014). While it seems likely that labiaplasty rates are increasing overall, it may not be as rapid as presented in popular media.

A key problem with the Porn Thesis narrative is the assumption that pornography is the primary or only driver of these surgeries. There are very few dissenting voices to the orthodoxy that increased pornography consumption is the cause of increased genital dissatisfaction and subsequent labiaplasty. It is possible that these two phenomena co-vary. However, it is incorrect to assume that this implies causality. As we have argued elsewhere (Nurka & Jones, 2013), there are historical antecedents underpinning our cultural disgust of labia. Colonial ethnographers described the elongated labia of southern African women using animalistic (C. W. D., 1867), and highly sexualised language (Wiegman, 1995) leading to a general agreement in the nineteenth and twentieth centuries that large labia were a primary indicator of masturbation, insanity, promiscuity and prostitution (Dickinson, 1902; Miller, 2000; Tuana, 2008). The narrative of white, small labia as superior to larger, darker labia is firmly rooted in these historical ideas and underpins both the pornographic ideal and the modern practice of cosmetic labiaplasty.
Another flaw in the Porn Thesis is the assumption that pornography represents only one type of vulva to which a number of negative outcomes can be linked. There is no acknowledgement that pornography in magazines available in newsagents is vastly different to online pornographic videos and films. A frequently cited argument about the legal requirement for invisible labia minora (Drysdale, 2010) only applies to ‘soft porn’ magazines, whereas the increase in pornography consumption is largely attributed to online sources (e.g. "Study exposes secret world of porn addiction," 2012). Online porn, increasingly self-produced and created by amateurs, and inclusive of ‘vintage’ films from the 1970’s and 1980’s, comprises a variety of practices, body hair and body types (Howarth, Sommer, & Jordan, 2010; Weil Davis, 2002). Arguments that pornography ‘causes’ labiaplasty do not acknowledge this diversity.

There is another school of thought that dismisses the model that suggests pornography is acting directly upon women. It is possible, given that women are not the primary consumers of pornography, that the images contained therein influence our cultural practices by influencing men. Male consumers of pornography may develop a preference for vulvas that matches the ‘soft’ pornographic ideal and then, as a group, influence the practices of women though sexual encounters, social talk and other methods. Veale et al (2014) found that many labiaplasty patients reported negative comments about the appearance of their vulva. Of these, 64% were from a sexual partner, the rest being from friends and family. While this is a high percentage, pressure on women to conform to cultural standards of vulvar appearance does not come exclusively from male sexual partners. Moreover, we do not know if men who are high consumers of pornography have a preference for vulvas that are hairless and have no visible labia minora.
To date, there is only a single published study investigating the veracity of the Porn Thesis. In particular, we undertook a preliminary study to investigate the relationships between pornography and genital satisfaction and openness to labiaplasty (Jones & Nurka, in press). We found no evidence to support the Porn Thesis. Indeed, the model for genital satisfaction including demographics and pornography consumption explained only 4% of the variance. It is likely, therefore, that there are other variables that better explain variance in genital satisfaction.

While there are no further studies specifically focusing on the role of pornography, there is an extant body of literature on influences on genital satisfaction and openness to cosmetic surgery. Previous research indicates that mental health and psychological indicators are important in these contexts. Factors include depression (von Soest, Kvalem, & Wichstrom, 2012), anxiety (Veale et al., 2013), self-esteem (Swami, Chamorro-Premuzic, Bridges, & Furnham, 2009) and self-objectification (Calogero, Pina, Park, & Rahemtulla, 2010).

Self-objectification is the process whereby an individual has internalised the sexual objectification of women, and therefore views their body as an object (Fredrickson & Roberts, 1997). Sexually objectifying material saturates our culture and girls are ‘taught’ from a young age that women’s bodies are objects. Self-objectification as a process involves body consciousness and evaluation; however, the outcomes of the evaluation are not relevant to the theory. It is the process of evaluation itself which the authors argue causes serious psychological damage.

Additionally, our preliminary qualitative findings on women’s evaluations of their labia, and attitudes towards labiaplasty, suggest that change is an important factor in women’s consideration of their genital satisfaction (Jones & Nurka, in preparation). In particular, in this study women commented about changes in their genital...
morphology in response to life stages such as puberty or childbirth, and also on changes in their self-perception as they grew and matured. The findings suggested that resilience, which can help a person negotiate times of change, may be an important factor in women’s genital satisfaction. Central to the concept of resilience is the assertion that the individual can successfully adapt to change, stress and challenges. The resilient person may view these situations as opportunities for growth rather than negative events (Connor & Davidson, 2003). In the context of our preliminary work, women experiencing genital change as a result of puberty or childbirth may react differently depending on their resilience: women who are high in resilience may be more likely to accept their new morphology into their body image, rather than seek to change their body surgically.

Lastly, political conservatism may be an important factor in assessing women’s bodily evaluations. The evidence indicates that conservative women may be more likely to subscribe to conventional ideals and social propriety, such as sex-typical standards of beauty (Block & Block, 2006), and may therefore be more susceptible to cultural pressure to conform via cosmetic surgery.

**Aims:**

The current study aimed to test the role of pornography in genital satisfaction in the context of other predictors. Specifically, the objective was to undertake an exploratory study to determine:

1. factors that may predict women’s genital satisfaction and, in particular the role of pornography consumption in the presence of known predictors; and

2. if there is a relationship between the pornography consumption of partners of women and their preference for the appearance of vulvas.
2. Methods

Participants

Participants were 260 men and women (199 76.5% female) from 12 countries. Although the majority of participants were Australian (91.2%, n = 229), a further 5.2% (n = 13) were from New Zealand, and another 2.4% (n = 6) were from the United States. Other countries included the United Kingdom, Croatia, Canada, South Africa, Kyrgyzstan, Singapore, Taiwan, the Netherlands and Japan. The mean participant age was 36.9 years (SD = 10.9), ranging from 18 to 73. The participants were highly educated, with 57.7% having completed a Bachelor degree or above. This is well above the Australian national rate of tertiary education of 30% (Australian Bureau of Statistics, 2011). Among female participants, 88.4% identified as heterosexual, 3.0% were lesbian and 7.5% identified as bisexual. A similar distribution was evident among the men in the sample, with 88.3% identifying as heterosexual, 3.3% as gay and 5.0% as bisexual. Of the women, 41.2% were nulliparous.

Materials

The study comprised an online, anonymous questionnaire incorporating a series of psychometrically evaluated questionnaires and bespoke items.

Genital satisfaction in women was measured with the Genital Appearance Satisfaction scale (GAS) (Bramwell & Morland, 2009). This measure was selected as it does not include items concerning the functionality of the vulva, but focuses exclusively on aesthetics. It comprises 10 items measured on a 4-point Likert scale from ‘Never’ to ‘Always’ with higher scores indicating higher dissatisfaction. An example item is: ‘I
feel that my genitals are normal in appearance’. The instrument displays adequate psychometric properties in a general population sample. In the current study, the reliability of the instrument (Cronbach’s alpha) was 0.91.

*Self-objectification* was measured using the Body Surveillance subscale of the Objectified Body Consciousness Scale (OBCS) (McKinley & Hyde, 1996). This well-established measure has excellent psychometric properties in community samples. This OBCS consists of 23 items. Of these, the Body Surveillance subscale (8 items) is designed to measure the behavioural component of self-objectification. An example item is ‘I rarely compare how I look with how other people look’ (reverse scored). All items are scored on a 7-point Likert scale from ‘Strongly disagree’ to ‘Strongly agree’. Higher scores indicate higher levels of self-objectification. In the current study, the internal reliability (Cronbach’s alpha) of the subscale was 0.85.

*Depression* was measured with the Center for Epidemiologic Studies – Depression scale (CES-D) (Radloff, 1977). This is one of the most widely used instruments to measure depressive symptomatology in community samples and has excellent psychometric properties. The instrument comprises 19 items such as ‘I felt that everything I did was an effort’. The items are scored on a 4-point Likert scale with higher scores indicating higher symptomatology. In the current study, the internal reliability (Cronbach’s alpha) of this measure was 0.74.

*Anxiety* was measured using the Generalized Anxiety Screener (GAD-7) (Spitzer, Kroenke, Williams, & Lowe, 2006), an instrument designed for use in general population studies. It has adequate psychometric properties. This 7-item scale measures the symptoms of generalised anxiety, with items such as ‘over the last two weeks how often have you been bothered by: being so restless that it is hard to sit still?’ All items are scored on a 4-point scale from ‘Not at all’ to ‘Nearly every day’ with 187
higher scores indicating higher symptoms of generalised anxiety. In the current study, the internal reliability (Cronbach’s alpha) was 0.92.

*Resilience* was measured with the Connor-Davidson Resilience Scale (CD-RISC) (Connor & Davidson, 2003), which again is well-tested and adequate in this population. This instrument comprises 25 items such as ‘I am able to adapt when changes occur’. Each item is scored between 0 (‘*Not true at all*’) and 4 (‘*True nearly all the time*’). In the current study the Cronbach’s alpha for this scale was 0.92.

*Sexist events* were measured using the procedure described in Swim et al (1998). This scale asks participants about experiences such as catcalling, degrading gendered language, ogling and unwanted sexual advances. As the original scale was employed with university students and used a semester as a timeframe, we substituted 6 months for use in our community sample. Each item is rated against frequency measurements (‘*Never*’, ‘*Once*’, ‘*One a month*’, ‘*Once a week*’ and ‘*Two times or more per week*’). The internal reliability (Cronbach’s alpha) of this scale in the current study was 0.89.

In the interests of brevity, we constructed three items to measure *conservatism*, *negative comments* and *pornography consumption*. Conservatism was measured on a 7-point Likert scale (‘*Strongly progressive/ left wing*’ to ‘*strongly conservative/ right wing*’). Negative comments were assessed by a single binary item and frequency of pornography consumption was rated on a 5-point scale (‘*Never*’, ‘*Monthly or less*’, ‘*2-4 times a month*’, ‘*2-3 times a week*’, ‘*4 or more times a week*’).

Lastly, we asked participants about their *education*, *sexual orientation*, *gender*, *age*, whether they had considered *labiaplasty* (women only) and if they had a *preference for the vulvar appearance of female sexual partners* (not delivered to heterosexual women or gay men). Each of these was measured using a single item.
Procedure

We recruited participants via a Facebook page (www.facebook.com/vulvatalk) and advertising. The advertisements were deployed on Facebook with copy such as “ANU survey research on cosmetic surgery, mental health and adult material. Participate now!” or “ANU survey research on explicit material and mental health. Participate now!” These advertisements reached a total of 263,759 people with a budget of AUD912.34 resulting in 527 survey clicks and 87 page ‘likes’.

Once participants clicked on the link to the survey, they were taken to a participant information page containing general information about estimated completion time, general content and anticipated risks. Participants were also asked to agree to statements that they were over 18 years and that they consented to participate in the research. If these items were not selected, the participant could not move through the survey. Submission of a completed survey constituted consent to participate.

3. Results

Means, standard deviations and intercorrelations of measurement instruments are presented in Table 1. Our primary variable of interest, genital satisfaction was significantly correlated with a number of predictor variables. Genital satisfaction was weakly correlated with pornography consumption and conservatism, and moderately correlated with self-objectification, depression, anxiety, resilience, sexist events and age. There were no correlations between genital satisfaction and either education or negative genital comments.
Table 1: Means, standard deviations and intercorrelations.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
<th>Genital Satisfaction</th>
<th>Pornography consumption</th>
<th>Self-surveillance</th>
<th>Depression</th>
<th>Anxiety</th>
<th>Resilience</th>
<th>Sexist events</th>
<th>Conservatism</th>
<th>Negative comments</th>
<th>Education</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genital Satisfaction</td>
<td>6.19</td>
<td>5.80</td>
<td>199</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>Pornography consumption</td>
<td>-</td>
<td>-</td>
<td>226</td>
<td>.18*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self-surveillance</td>
<td>33.63</td>
<td>9.70</td>
<td>260</td>
<td>.356**</td>
<td>.03</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Depression</td>
<td>20.56</td>
<td>7.37</td>
<td>260</td>
<td>.30**</td>
<td>.18**</td>
<td>.30**</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Anxiety</td>
<td>5.03</td>
<td>5.00</td>
<td>260</td>
<td>.29**</td>
<td>.23**</td>
<td>.37**</td>
<td>.67**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Resilience</td>
<td>27.87</td>
<td>7.10</td>
<td>260</td>
<td>-.34**</td>
<td>-.22**</td>
<td>-.33**</td>
<td>-.49**</td>
<td>-.57**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sexist events</td>
<td>3.65</td>
<td>5.14</td>
<td>260</td>
<td>.27**</td>
<td>.05</td>
<td>.26**</td>
<td>.30**</td>
<td>.27**</td>
<td>-.18**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Conservatism</td>
<td>-</td>
<td>-</td>
<td>260</td>
<td>.19**</td>
<td>.04</td>
<td>-.05</td>
<td>.03</td>
<td>.04</td>
<td>.01</td>
<td>-.13*</td>
<td>.01</td>
<td>-.13*</td>
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<td>Negative comments</td>
<td>-</td>
<td>-</td>
<td>260</td>
<td>-.03</td>
<td>.03</td>
<td>.09</td>
<td>-.08</td>
<td>.04</td>
<td>-.04</td>
<td>-.12</td>
<td>-.07</td>
<td>-.12</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Education</td>
<td>-</td>
<td>-</td>
<td>260</td>
<td>-.11</td>
<td>-.06</td>
<td>.02</td>
<td>-.15*</td>
<td>.09</td>
<td>.10</td>
<td>-.12</td>
<td>-.24**</td>
<td>-.12</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Age</td>
<td>36.88</td>
<td>10.94</td>
<td>260</td>
<td>-.32**</td>
<td>-.15*</td>
<td>-.26**</td>
<td>-.24**</td>
<td>-.21**</td>
<td>.27**</td>
<td>-.39**</td>
<td>.07</td>
<td>-.01</td>
<td>.17**</td>
<td>-</td>
</tr>
</tbody>
</table>

* P<0.05; ** p<0.01 (Two tailed)
**Genital Satisfaction**

Our primary aim was to identify potential predictors of genital satisfaction among women in the presence of known predictors. In order to investigate this we conducted a backwards stepwise multiple regression analysis to identify significant predictors of genital satisfaction (see Table 2). When using data-driven modelling it is ideal to partition the data to cross-validate the model (Field, 2009). However, there was insufficient data to implement this procedure and therefore the results must be treated with caution. There were no multicollinearity issues within the data (VIF 1.02 – 1.37) and there were no significant outliers. The assumptions were not violated, with the exception of a minor violation of the assumption of homoscedasticity. This indicates that the spread of residuals for each predictor may be different for each level of that predictor. The results of this analysis, therefore, may not be generalisable.

<table>
<thead>
<tr>
<th>Step</th>
<th>Excluded variable</th>
<th>R² (change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>.27 (-)</td>
</tr>
<tr>
<td>2</td>
<td>Pornography</td>
<td>.27 (-)</td>
</tr>
<tr>
<td>3</td>
<td>Anxiety</td>
<td>.27 (-)</td>
</tr>
<tr>
<td>4</td>
<td>Sexual Orientation</td>
<td>.27 (-)</td>
</tr>
<tr>
<td>5</td>
<td>Negative Genital Comments</td>
<td>.27 (-)</td>
</tr>
<tr>
<td>6</td>
<td>Education</td>
<td>.27 (-)</td>
</tr>
<tr>
<td>7</td>
<td>Depression</td>
<td>.27 (-)</td>
</tr>
</tbody>
</table>

* P<.05; ** p<.01; *** p<.001
The initial model included all predictors in a forced entry method: education, sexual orientation, age, conservatism, self-objectification, resilience, depression, anxiety, negative genital comment, pornography consumption and sexist events. The initial R2 was .27. Variables were excluded if they failed to significantly predict genital satisfaction at p = 0.05. There were seven steps in the analysis with no change to the variance explained. The final model included age, conservatism, self-objectification, resilience and sexist events (F (5,193) = 13.90, p < .001; R2 = .27).

**Pornography consumption and vulvar preferences**

In order to examine potential relationships between frequency of pornography consumption and vulvar preference, we excluded those with no sexual relationships with women. We recoded pornography consumption into three categories (low, medium and high) to avoid low cell counts. There was no association between pornography consumption and vulvar preference (χ2 (2) = 1.748, p = .443, Fisher’s exact=1.206).

**Labiaplasty**

In the survey we asked participants if they had considered any cosmetic procedures, including labiaplasty. Since the resulting binary variable had only 22 endorsements it was not possible to undertake a logistic regression to identify the predictors of openness to labiaplasty.
4. Discussion

*Genital satisfaction*

There was no evidence that frequency of pornography consumption affected genital satisfaction in this sample. Rather we found that the strongest predictors of genital satisfaction were political conservatism and self-objectification. The remaining significant predictors were age, resilience and sexist events. In this analysis, education, sexual orientation, depression, anxiety, negative genital comments, and pornography consumption did not contribute to the model. The current study is the first to investigate the role of pornography in genital satisfaction in the context of other predictors, and the first to test the Porn Thesis using a suitable methodology and including potential predictors based on previous research.

The finding that frequency of pornography consumption was not associated with genital satisfaction is inconsistent with the Porn Thesis, as it posits that women become dissatisfied with their vulvas upon comparison with those displayed in pornography. Although the overall frequency of pornography consumption did not predict genital satisfaction, the findings do not exclude the possibility that particular modes of pornography delivery or content types might be associated with the level of genital satisfaction. For example, Moran and Lee (2014) recently found that exposure to images of modified vulvas changed participants’ perceptions of normality. It is unlikely that the majority of the public is exposed to enough of these images in daily life to have a ‘treatment effect’. However, it is possible that heavy exposure to certain types of pornography could affect an individual’s perception of normal vulvar morphology and as a consequence their genital satisfaction. In particular, ‘soft’ pornography available in newsagents typically contains no genital detail and therefore heavy consumers of this type of material may have altered perceptions of normal vulvar morphology. The
current study had insufficient participants to generate analysable data on preferences for pornography content and delivery mode. Further research is required to investigate the relative effects of different types of pornography.

Conservatism was the strongest predictor of genital satisfaction with women who are more conservative showing greatest dissatisfaction with their genitals. This finding is consistent with evidence that conservative women subscribe more closely to culturally normative ideals of beauty than progressive women (Crandall & Biernat, 1990). Apparently the concept of an ‘ideal’ labia is more persuasive to conservative than progressive women. As with most beauty ideals, few women naturally fall into the ideal categories, leaving large numbers of women dissatisfied with their bodies. In the current study, we asked participants about their preferred political alliance (right wing versus left wing). However, as previous research has shown that right wing authoritarianism is a multidimensional construct (Duckitt & Bizumic, 2013), we are unable to ascertain from this study which aspects of this construct are impacting on genital satisfaction.

Self-objectification was the second most important predictor in the model. The sexually objectifying images to which we are exposed on a daily basis from birth seldom include explicit images of vulvas. While Internet pornography has made such images more accessible, it is unlikely that most girls have the levels of exposure to pornographic images that they do to objectifying images. Therefore, in the case of genital satisfaction, we suggest that the process of self-objectification is not restricted to the parts of the body that are typically depicted in objectifying images, such as breasts or legs. Rather, once the process of self-objectification has commenced, it is likely that the woman sees her whole body as an object. In this way her bodily image is affected in toto, rather than being comprised of individual evaluations of body parts. It may be
possible to investigate this empirically by inducing elevated state self-objectification – using for example the procedure undertaken by Roberts and Gettman (2004) – and then asking participants to rate their body parts, including those that were not included in the priming material.

We found that resilience was a significant predictor of genital satisfaction. A recent study (Szymanski & Feltman, 2014) into the role of resilience in coping with sexually objectifying experiences found that resilience was an important moderator. Specifically, women who were high in resilience were less likely to cope via internalisation and experienced less psychological distress. Conversely, the authors found that low resilience was an exacerbating factor. While the latter study did not specifically investigate genital satisfaction, its findings suggest that high resilience is an important protective factor for women experiencing sexual objectification which in turn predicted genital satisfaction in the current sample. Moreover, our finding is consistent with our preliminary qualitative study (Jones & Nurka, in preparation) in which we found that change was an important theme for our participants. In the case of genital satisfaction, the changing morphology of the body throughout puberty and childbirth may be a source of distress for some women. Those who are resilient may be less likely to experience this distress and may traverse these bodily changes with less difficulty. Therefore it may be that high resilience assists women to avoid the negative effects of objectifying experiences, and acts directly by ameliorating the stressful effects of bodily change.

In this study we also found that age was associated with greater genital satisfaction, with older participants reporting greater satisfaction. This is consistent with the findings from our qualitative study (Jones & Nurka, in preparation) that many women had learned to overcome their earlier reservations about their bodies and
embrace them. Although it is likely that older women had larger labia due to age and childbirth, the women in the current sample had found ways to reject an externally imposed imperative and accept their natural diversity.

Lastly, sexist events were a predictor for genital satisfaction. In particular, those exposed to more unwanted sexist behaviour were less satisfied with the appearance of their genitals. Again, like sexual objectification, these experiences did not necessarily directly target the appearance of the individual’s genitals. As with self-objectification, it may be that sexist events encourage women to evaluate their bodies. Again, instead of evaluating only the parts of the body that are visible or targeted, it may be that women evaluate their bodies as a whole. Previous research in this area has found that hostile sexist events may be associated with poor body esteem (Oswald, Franzoi, & Frost, 2012).

As with pornography consumption, neither depression nor anxiety predicted genital satisfaction. To our knowledge this is the first empirical study of the relationship between mental health symptoms and genital satisfaction. A previous research group did report that self-esteem was a predictor of genital satisfaction (Bramwell & Morland, 2009). Accordingly it might have been anticipated that depressive symptoms – which are associated with lower self-esteem (Franck & Raedt, 2007) – might be a predictor of genital satisfaction. The current evidence provided no support for this hypothesis.

Finally, negative comments from partners did not predict lack of genital satisfaction. However, the significance of this finding is unclear since the reported frequency of such comments in the current study was low (n= 22, 11.1%).
Vulvar preferences

Not only was pornography unrelated to genital satisfaction, we found that pornography did not affect the vulvar preferences of participants with female sexual partners. In fact, the overwhelming majority of participants who were partners of women expressed no preference for the appearance of their partner’s vulva. Additionally, in cases where a participant did express a preference, the preferred appearance did not necessarily comply with the social ideal of small or invisible labia minora. Participants had the opportunity to write their preferences in long answer format, but the data were too sparse to be useful in analysis. However, it was apparent that although some preferences were consistent with the social ideal, others were not. While this evidence is by no means definitive, it does cast doubt on the theory that pornography is driving genital dissatisfaction through male consumption, who then promulgate these ideals by pressuring women to comply with the pornographic aesthetic.

Limitations

The current study has a number of limitations. Firstly, the sample size was not sufficient to partition the data to replicate the stepwise regression. This is an important step in data-driven modelling, as variations in samples can cause large variations in models. Accordingly, the research needs to be replicated to confirm the role of each of the predictors. Secondly, the sample is not representative of the general community and thus may not be generalizable to the wider population. Lastly, we were unable to model the predictors directly on labiaplasty due to an insufficient sample of participants who indicated that they had considered labiaplasty.
5. Conclusion

This quantitative study is the first to empirically investigate the relationships between pornography, psychological characteristics and genital satisfaction. We found no evidence for any effect of pornography on genital satisfaction, or preferences for the appearance of the vulva. Self-objectification and sexist events appear to be important predictors of genital dissatisfaction. Conservatism was also associated with increased dissatisfaction, whereas age was associated with greater genital satisfaction. Future research should include self-objectification and conservatism in models of genital satisfaction and desire for labiaplasty. Additionally, further research with sufficient sample sizes is required to investigate any differential patterns of genital satisfaction among specific types of pornography users and to explore the predictors of labiaplasty. The results of this study provide avenues for future research, and add to our understanding of the complexity of genital satisfaction and genital cosmetic surgery, beyond the simple influence of pornography.
References


Integrated Conclusion

Summary of Research Findings

This thesis has examined, through a range of techniques and methods, the relationships between pornography, mental health indicators and genital satisfaction. We initially used an historical perspective to investigate the representation of the labia throughout the era of British Colonialism and eugenics. We then explored the ways in which these historical antecedents have impacted our current legal and cultural perspectives (Paper 1). We found that labial disgust has been deeply embedded in sexist and racist discourse throughout the last few hundred years. This lengthy history contrasts with recent claims that our cultural labial disgust is a product of modern pornography (the Porn Thesis), and in particular, the broad dissemination of pornography over the Internet.

Colonial ethnographers examined the labia of the women of southern Africa, in particular the Khoi people and used their observations of morphological difference to justify claims of the inferiority of the ‘lower races’. This was also extended to the women of South East Asia. These biological claims of white superiority were connected with claims about the supposed prurience of women of colour. The claims of significantly larger labia in women of colour was said to provide evidence of their base and animal natures.

These assumptions were carried through history to the period of eugenics during which time labial morphology was one criterion for sterilisation of women who engaged in perceived undesirable sexual behaviours, such as masturbation, homosexuality or prostitution. Again, large labia were seen as an indication of a biological predisposition to sexual ‘perversion’, and the only solution was to stop the women from breeding.
These discourses of excess and pathology are carried through to our modern culture, where these same narratives are deployed by cosmetic surgeons seeking to encourage women to undertake cosmetic labiaplasty. Similarly, our legal structure in Australia effectively deems the labia as obscene by its very existence; it is the only part of the human body to be granted this special status. We concluded that, far from being a recent phenomenon, labial disgust is a longstanding cultural standpoint in white Western culture.

We then used empirical techniques to investigate the Porn Thesis perspective on genital satisfaction and openness to labiaplasty. In the first paper to empirically investigate the validity of the Porn Thesis (Paper 2) our online survey study provided evidence that the thesis was a far from satisfactory explanation of genital satisfaction, and by extension, openness to labiaplasty. In particular genital satisfaction was not adequately explained by a model that included only demographics and pornography consumption. We concluded that other variables must be included in future models if we are to adequately explain genital satisfaction. This paper was the first to empirically investigate such issues.

The qualitative data from the latter preliminary survey suggested that Objectification Theory may be a useful model for exploring the factors that predict genital satisfaction. Our second empirical study was designed to extend our previous investigation of the predictors of genital satisfaction (Paper 4), by incorporating a number of measures of individual difference together with measures of pornography consumption and demographic status. The survey was presented in the form of an online anonymous questionnaire. We found that, again, pornography was not a significant predictor of genital satisfaction. The strongest predictors were conservatism and self-objectification. Importantly, self-objectification was the only modifiable factor
that remained in the model. This has important implications for clinical practice and policy makers.

We then conducted a systematic review to determine if Objectification Theory was supported empirically. We concluded that the evidence generally supported the Theory. However, there were some flaws in the literature that must be overcome to gain a fuller understanding of the relationship between self-objectification and depression. This paper was the first systematic review of Objectification Theory. Our conclusions were that self-objectification may be particularly important in adolescence.

Lastly, we also examined the relationships between self-objectification and depression and disordered eating controlling for common mental health risk factors (Paper 5). As previous work had largely excluded common risk factors in models investigating the association between self-objectification and mental disorders, this research represents an important step in determining the contribution of self-objectification to explaining these disorders. With risk factors included, self-objectification was a strong predictor of disordered eating. However, when the effects of common risk factors were removed, self-objectification did not add to the model for depression. Based on the findings from our review of depression and self-objectification (Paper 3) it is possible that self-objectification would have more impact in an adolescent sample than in the current adult sample.

These empirical investigations of the relationships between pornography, psychological variables and genital satisfaction are unique in the literature. There have been no previous empirical investigations of these relationships. Previous work has largely been theoretical, and emphasis has been placed on the role of pornography, or the role of ‘pornification’. Based on the current results it would seem that self-objectification has greater validity when considering the impacts of sexualised
objectifying material on genital satisfaction and labiaplasty, and that it should be included in future models and research on these factors.

**Comparison with Previous Research**

Although no previous research has directly investigated the role of pornography in genital satisfaction and openness to labiaplasty, there has been previous research into genital satisfaction more broadly. This is a relatively new area and the research is limited. However, the generally high level of genital satisfaction expressed in both our samples is consistent with previous work. Since 2009, a number of studies of genital satisfaction in community samples have found high levels of satisfaction. Indeed, there is no evidence of a trend of increasing dissatisfaction, which should be evident if the Porn Thesis were correct. Our findings of generally high genital satisfaction are consistent with earlier work.

Other work surveying community attitudes to labiaplasty has apparently found higher rates of endorsement than we have observed in our surveys [1, 2]. Participants with a higher educational level were overrepresented in our samples. Since higher levels of education were found to be associated with less openness to labiaplasty in the current sample; it is possible that our study underestimated the rate of openness labiaplasty in the general population.

Our finding that self-objectification is an important predictor of disordered eating is broadly consistent with previous findings in the area. Self-objectification has been applied to research and clinical practice in the field of eating disorder for many years. Self-objectification theory also predicts that self-objectification will lead to depression and our systematic review of previous research provided some support for a link between the two, particularly in adolescence (Paper 3). However, most of the
extant literature failed to control for the contributions of known risk factors for depression. We found that after controlling for such factors, self-objectification did not predict depressive symptoms in adults (Paper 5). However, prospective research is required to investigate the relationship between the variables during adolescence, given that the latter is an important period for the emergence of both self-objectification and depression.

The collection of studies in the current thesis by publication describes some of the first work to link self-objectification and genital satisfaction. In this respect we are expanding the applicability of Objectification Theory to other areas of human experience than the outcomes predicted by the theory; namely depression, disordered eating and sexual dysfunction. The theory provides a useful framework for thinking about the impacts of objectifying material, of which pornography is only a small part. The overwhelming preponderance of sexually objectifying images and media in our culture far outweighs our exposure to pornography. This is particularly important, as exposure to objectifying material begins at birth, whereas pornography exposure typically occurs at a considerably later stage. Our research indicates that the process of self-objectification is not limited to the body parts that are portrayed in the material itself. Rather, the process of self-objectifying extends to the whole body of the individual.

**Theoretical Implications of Findings**

*The Porn Thesis*

This body of work provides significant evidence against the Porn Thesis. This model was developed from a theoretical rather than an empirical framework but failed
to take into account the deep historical nature of labial disgust. Our investigations suggest that the Porn Thesis is likely to be overly simplistic, and that pornography consumption is unlikely to impact in a meaningful way on genital satisfaction. This is an important finding given that funding has already been directed to interventions based on the Porn Thesis. For example, the Labia Library was established to counter the pornographic images of women’s vulvas, thereby supplying women with information about the true diversity in vulvar morphology. However, in order to target funds to interventions of likely effectiveness, the interventions should be informed by empirical evidence and evidence-based theories. While the work described in the current thesis is not yet sufficiently comprehensive to provide that evidence, it does constitute a starting point from which future research can progress.

We acknowledge that it is possible that pornography may have other forms of influence. It may be that particular modes of delivery or content affect people in different ways. For example, we cannot exclude the possibility that ‘soft’ pornographic magazines, which are subject to Australia’s classification laws and therefore do not show labia minora, may be more deleterious than Internet pornography which has a greater variety of bodies displayed. Alternatively, there may be an interaction effect, where the beliefs and behaviours of high consumers of soft pornography are affected. It is also possible that pornography acts as a moderator between genital satisfaction and desire for labiaplasty. Perhaps pornography consumers who are dissatisfied with their genitals are more likely to seek surgery than non-pornography consumers who are dissatisfied with their genitals. The Porn Thesis, as it stands is unlikely to provide a realistic representation of the factors influencing genital satisfaction. However, future refinements to the research may find that pornography does play some role in labiaplasty.
Objectification Theory

The research presented in this thesis largely provides support for the claims of Objectification Theory. Consistent with earlier research, we have found that self-objectification is a strong predictor of disordered eating. However, in contrast to earlier work, our study found that self-objectification was not a unique predictor of depression among adults. This is likely due to our inclusion of other risk factors for depression. As our systematic review found that adolescence may be a particularly important time in the development of self-objectification and depression, further work in this population is warranted.

Significantly, this work extends Objectification Theory to the area of genital satisfaction. The authors of the theory make no claims about the impact of self-objectification on genital satisfaction per se. However, the comparison of the self to an unachievable ideal is likely to lead to shame. In this work, we have identified that women’s comparisons do not necessarily cease at the body parts that they observe in the media. It is likely that girls, in their observation and comparison of their bodies, do so in an holistic way. This includes their genitals, which are not generally on display in objectifying media.

Finally, the concept of self-objectification, which may be conceptualised, in part, as an individual response to media experiences encompasses a broad range of individual variability. The important distinction is that while we are all exposed to similar material in the media and elsewhere, we respond differently as a result of our unique array of endogenous and exogenous factors. In this case, self-objectification is a de facto measure of the impact of sexually objectifying material, but with empirical validity. This is in contrast to the concept of ‘pornographication’ which encompasses the expansion of pornographic aesthetics into our wider media and cultural landscape.
Pornographication has utility as a descriptor in a cultural setting; however, as a concept to describe empirical phenomena, it has limited applicability. It has no testable predictions or standardised measurement system.

**Limitations of the Study/Investigation**

The current work has a number of limitations. Firstly, in both surveys the endorsement rates of labiaplasty were so low as to render them unsuitable for multivariate analysis. This precluded specific conclusions about the predictors of labiaplasty itself. We know from our preliminary empirical work that women who are dissatisfied with their vulvas do not necessarily seek surgery. However, we cannot exclude the possibility that the difference between dissatisfied women who seek surgery, and those who do not, is moderated by pornography consumption.

The initial preliminary study was designed primarily as a qualitative survey and did not include standardised instruments. The conclusions of this research must therefore be interpreted with some caution. Nevertheless, our second survey, which did include standardised instruments, supported the findings of the earlier work lending support to the conclusion that frequency of pornography consumption has little to no impact on genital satisfaction. Nevertheless, as acknowledged previously, the educational background of this sample of volunteers was not representative and may have influenced the findings.

Further, as much of the empirical research reported here explores questions that have not been the subject of previous investigation, it is important that the work is replicated to test its reliability. Meanwhile, the work provides a strong basis for future research on the topic.
Finally, the systematic review did not include a quantitative synthesis because the studies were largely observational and heterogeneous, precluding synthesis of the data using standard meta-analytic techniques.

**Future Research**

Future research is required to replicate the current studies and to confirm that self-objectification but not pornography is a meaningful predictor of genital satisfaction. Further, since the endorsement rate for labiaplasty was too low in the current study for meaningful analysis, future studies should specifically target women who are contemplating undergoing labiaplasty as well as a matched sample of women in the community who are not contemplating the procedure.

There would also be value in investigating the role of self-objectification in genital satisfaction more directly. This could be investigated using laboratory-based experimental manipulation of self-objectification, or community-based surveys. Further, longitudinal studies are required to investigate the relationship between self-objectification and depression in adolescence, and in particular to determine more accurately the role that the self-objectification construct plays in the aetiology of depression.

Our finding that conservatism was the strongest predictor for genital satisfaction also merits further investigation. We used only a single item to assess conservatism, but other work in this area has found that it is a multi-dimensional construct [3]. Future research into the role that conservatism plays in genital satisfaction could contribute to the development of a more complete model if conservatism were assessed using a multi-dimensional instrument.
Finally, there is a need to develop and evaluate the efficacy of interventions that are informed by the empirical evidence (see below).

**Practical Implications of the Research**

A key contribution of this work is its implications for the funding and delivery of current interventions designed to reduce demand for labiaplasty, or to improve women’s genital satisfaction. As mentioned above, interventions with no evidence of efficacy based on the Porn Thesis, a theoretical model with no empirical basis currently receive funding for dissemination to the community. Evidence-based preventive interventions based on Objectification Theory are more likely to be effective than interventions that are not informed by risk factor evidence.

Interventions based on Objectification Theory have the potential to reduce psychological morbidity in eating disorders, depression and anxiety. Such interventions could provide girls with the tools to be resilient in the face of a sexualising and objectifying culture. If self-objectification proves to be an important factor in depression in adolescence these interventions might also reduce the gender difference in the prevalence of depression. Interventions to reduce self-objectification may conceivably result in reductions in cosmetic surgery, although this may not be measurable. For maximal preventive effect the interventions should particularly target adolescent or pre-adolescent populations. For scalability Internet delivery in schools could be an effective mode of delivery for these interventions.

This research also has implications for policy-makers. The costs to our society of our sexually objectifying culture are significant. Not only are women more likely to experience a range of mental health problems than men, but they are also more likely to be dissatisfied with their bodies and seek surgery. Research indicates that self-
objectification is likely to result, at least in part, from very high levels of exposure to sexually objectifying material from the earliest stage of life. Modelling the financial impacts of such objectification may promote a change in our cultural tolerance for this type of media, and by extension a change in national Classification Laws.

Conclusion

The Porn Thesis as we have defined it, is a model of direct action presented in popular media and academic literature. The most basic form of this hypothesis is that women observe the vulvas of women in pornographic material, compare themselves with such images, become dissatisfied with their labia and seek surgery to ‘correct’ the deviant body. Other models include a mediation effect through male consumers of pornography (i.e. men’s preferences for vulvar appearance are influenced by pornography and in turn promulgated throughout society) and a general ‘pornographication’ or ‘pornification’ of our culture and its media. We did not find evidence in support of any of these models. While we were unable to directly investigate openness to labiaplasty, in the samples of women in these studies, pornography consumption was not associated with increased genital dissatisfaction. It may be the case that for women who experience genital dissatisfaction, pornography may increase the likelihood of seeking labiaplasty; however, this model differs significantly from the Porn Thesis as typically presented.

We found that it was likely that rates of labiaplasty are increasing (albeit at lower rates than is typically cited). However, we conclude that increases in labiaplasty are unlikely to be the result of increased pornography exposure, but more likely to be a result of increases in exposure to objectifying material, and possibly the normalisation
of the procedure through media accounts of its popularity. Future research into self-objectification and other variables of individual difference may refine this model.

This work is the first to empirically investigate the role of pornography in genital satisfaction and openness to labiaplasty. Previous work in this area has largely been in the liberal arts and has therefore not incorporated an empirical component. While openness to labiaplasty could not be analysed with multivariate analyses in the current study, the results for genital satisfaction cast doubt on the assumption of the central role of pornography and has generated leads for future research, particularly with regard to conservatism and self-objectification.
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Appendix 1: Vulvata lk Information and Consent Sheets

Information and Consent

Women's attitude towards genital surgery and pubic hair removal: the impact of parturition.

The aim of this research is to find out the ways in which women talk and think about their bodies. We are interested in:

How do women feel, and are they concerned, about the way their vaginas look?

What are women’s thoughts about waxing or shaving?

Would women consider surgery on their vaginas?

What do women think about what is ‘normal’ for vaginas?

How do women make comparisons between ‘normal’ and ‘abnormal’?

The study involves answering an online anonymous survey. We will be asking about your views on genital surgery, pubic hair removal and childbirth. There will be questions asking you to rate different statements, and there will also be room for you to express your viewpoint. There are no right or wrong answers. We are interested only in your opinions.

The information you provide will be anonymous. The data will be kept and stored securely by the researchers for at least five years, after which the original responses may be destroyed. The survey data may be published in journals or presented at conferences. If you wish to hear about the outcomes of the survey, you can supply your contact details to the researchers via the Facebook page. Your name will not be
associated with your survey responses. The data is being collected for research purposes only.

The survey will take 15 to 20 minutes. There are no known risks of participating in this project.

Your participation in this study is completely voluntary. All participants are free to withdraw at any time.

The investigators for this study are Dr Camille Nurka, School of Social and Political Sciences, The University of Melbourne, and Ms Bethany Jones, the Centre for Mental Health Research, the Australian National University. If you have any questions about this project, you can contact Camille on 0406 722 399 or at cnurka@unimelb.edu.au. You can also contact Bethany on 0433 167 919 or at bethany.jones@anu.edu.au.

This study has been approved by the University of Melbourne Human Research Ethics Committee (HREC #1135485.1). If you have any concerns about the way the research was conducted, please contact the Executive Officer, Human Research Ethics, The University of Melbourne, ph: 8344 2073; fax 9347 6739.

The research has also been approved by the Australian National University Human Research Ethics Committee (Ref#). They can be contacted at: Office of Research Integrity, Research Office Chancellry 10B, Lower Ground Floor, East Road,
By completing and submitting the questionnaire, you are agreeing to the above.

Click here to proceed to the study questionnaire >>>
Appendix 2: Vulvatalk Questionnaire

1. Sex. M/ F/ Other
2. Age
3. Country of residence
4. Country of birth
5. What is your highest level of education that you have completed? Didn’t finish high school, finished high school, certificate/ apprenticeship, diploma/ advanced diploma, degree, PG Cert/ PG Dip, postgraduate degree.
6. Sexual orientation: primarily heterosexual, primarily homosexual, bisexual, celibate, other.
7. Have you ever had a baby? Y/N
8. Have you had, or would you consider, a caesarean delivery for non-medical reasons? Extremely unlikely, somewhat unlikely, neither unlikely nor likely, somewhat likely, extremely likely.
9. Why?
10. Do you have any concerns about the way your body looks/ might look during pregnancy? No concerns at all, mild concerns, grave concerns.
11. What are your concerns?
12. Do you have any concerns about the way your body looks/ might look after birth? No concerns at all, mild concerns, grave concerns.
13. What are your concerns?
14. Do you have any concerns about changes in bodily function during pregnancy and after birth? No concerns at all, mild concerns, grave concerns.
15. What are your concerns?

16. Do you remove your pubic hair? Y – bikini, Y – Brazilian (or other shaping), Y – full wax, N, Other

17. Why or why not?

18. How satisfied are you with the size of your labia (lips) or pubic region? Very dissatisfied, somewhat dissatisfied, neither dissatisfied nor satisfied, somewhat satisfied, very satisfied.

19. Why?

20. How satisfied are you with the shape of your labia or pubic region? Very dissatisfied, somewhat dissatisfied, neither dissatisfied nor satisfied, somewhat satisfied, very satisfied.

21. Why?

22. How satisfied are you with the colour of your genitals? Very dissatisfied, somewhat dissatisfied, neither dissatisfied nor satisfied, somewhat satisfied, very satisfied.

23. Why?

24. How satisfied are you with the tightness or function of your vagina? Very dissatisfied, somewhat dissatisfied, neither dissatisfied nor satisfied, somewhat satisfied, very satisfied.

25. Why?

26. (If dissatisfied with any of the above) At what age did you first become aware of this dissatisfaction?

27. (Elaborate)

28. Have you had, or would you consider cosmetic surgery for your labia or vagina? (please respond as though money were no object) Extremely
unlikely, somewhat unlikely, neither unlikely nor likely, somewhat likely, extremely likely.

29. Why or why not?

30. Do you think your genitals are normal? N, Y don’t know

31. Why/ why not

32. How do you know what normal adult female genitals look like?

33. Have you ever closely visually assessed your genitals? Y/N

34. Do you view, or have you viewed pornography? More than 5 yrs ago/ In last 5 yrs Frequently, Occasionally, Never

35. Do you think images of naked women (eg pornography or women’s magazines) have influenced the way you value your body? No influence at all, little influence, some influence, large influence.

36. Why or why not?

Thank you for taking the time to complete this questionnaire. If you are interested in the results of this study, or would like any further information, please contact bethany.jones@anu.edu.au.

If you are distressed, please contact Lifeline on 13 11 14 or your GP.

I understand that my participation in this study, conducted by Dr Camille Nurka and Ms Bethany Jones, is completely voluntary and for the purposes of research only. By submitting this survey, I understand that I am consenting to the researchers using my information for the purposes of research. I understand that the researchers may retain my responses for five years.
Appendix 3: VTII Information and Consent Sheets

Participant Information and Consent

Project Title: Predictors of genital satisfaction and openness to labiaplasty: pornography and psychological factors

Researcher: Bethany Jones is the primary investigator for this project. Bethany is a PhD student with the Centre for Mental Health Research. She is interested in women’s mental health.

General Outline of the Project:

Description and Methodology: The aim of this research is to find out what are the main influences on people with regard to how they feel about their genitals, cosmetic surgery in general, and genital cosmetic surgery in particular. We will be using Facebook to publicise the project and invite people to complete the questionnaire. We hope that the research will help us to understand the reasons for the increase in genital cosmetic surgery, as well as broader trends, such as gender differences in common mental disorders. We are interested in the views of both men and women. We are interested in a range of viewpoints, so all people over the age of 18 are invited to participate.

Participants: We are hoping for around 1,000 participants to complete our online questionnaire.

Use of Data and Feedback: The survey results may be published in journals, theses or presented at conferences. Only aggregate data will be presented, and at no time will you be able to be identified. If you wish to hear about the outcomes of the survey,
you can supply your contact details to the researchers via the Facebook page, or email vulvatalk@gmail.com. You do not have to complete the survey to be added to the mailing list. If you supply your email address we will be unable to determine if you have participated in the study or not, nor could we match any results to your personal details. This mailing list is open to researchers, policy makers, members of the media, and all other interested parties.

Monitoring: This work is supervised by experienced staff. The supervisory panel is chaired by Prof Kathy Griffiths of The Centre for Mental Health Research, and includes Dr Boris Bizumic of The Research School of Psychology, and Dr Camille Nurka of the University of New South Wales.

Participant Involvement:

Your participation in this study is completely voluntary. All participants are free to withdraw at any time. As the survey is anonymous, we will be unable to remove your information if you change your mind after you have submitted it.

What will I be asked to do? The study involves answering an online anonymous survey. We will be asking about your views on cosmetic surgery, genital cosmetic surgery, pornography consumption and a range of psychological measures. We are interested in the views of both men and women. We are interested in a range of viewpoints, so all people over the age of 18 are invited to participate.

Risks: It is possible that you may find some questions in the questionnaire confronting. We will be asking about your pornography consumption, how you feel
about your genitals and also some questions about your mental health. If these are likely to be distressing, please do not participate in the survey. You are free to discontinue the study at any time. If at any time you become distressed, please contact your GP or call Lifeline on 13 11 14.

Exclusion criteria: Only adults (those over the age of 18) are eligible to participate in this project.

Confidentiality: Only those involved in the project team will have access to the individual data you provide. The confidentiality of responses will be preserved as far as the law allows. Only survey responses will be recorded when you submit your questionnaire. For example, IP address (which can be linked to a physical location) and time of completion information will not be recorded with the survey data.

Data Storage: Data will be securely stored on encrypted servers by the Research School of Population Health, ANU. Data will be stored for at least 5 years after publication. After this time, the original data may be securely destroyed.

Queries and Concerns:

Contact Details for More Information: If you have any queries or concerns regarding this project, please contact Bethany Jones on 6125 1448 or email bethany.jones@anu.edu.au. You can also contact Professor Kathy Griffiths (Supervisory Chair) on 6125 2741 or email ea.cmhr@anu.edu.au.
Contact Details if in Distress: If you are distressed, please contact your GP or telephone Lifeline on 13 11 14. If you are experiencing suicidal thoughts, you can also contact the Suicide Call Back Service on 1300 659 467. If you are not safe, please call emergency services on 000.

Ethics Committee Clearance: The ethical aspects of this research have been approved by the ANU Human Research Ethics Committee. If you have any concerns or complaints about how this research has been conducted, please contact:

Human Ethics Manager
Human Research Ethics Committee
The Australian National University
T +61 (0)2 6125 3427

Email: Human.Ethics.Officer@anu.edu.au

Are you over 18?

Do you agree to participate in this questionnaire?
By selecting ‘Yes’ you agree that you have read and understood the information on privacy and consent provided above.
Appendix 4: VTII Questionnaire

Demographics

1. What is your gender? Male, Female, Other

2. How old are you? [enter number]

3. What is the highest level of education you have completed? Didn’t finish school, Finished high school, Certificate/ Apprenticeship, Diploma/ Advanced Diploma, Undergraduate Degree, Postgraduate Certificate or Postgraduate Diploma, Postgraduate Degree

4. What is your sexual orientation? Primarily heterosexual, Primarily homosexual, Bisexual, Other

5. What country were you born in? Australia, United States of America, United Kingdom, New Zealand, Other [specify]

6. What country do you live in now? Australia, United States of America, United Kingdom, New Zealand, Other [specify]

7. [For those indicating ‘Female’ above] Have you ever had a baby? [Y/N]

8. Please choose which describes your political orientation: (NB: Progressive/ left wing examples are Australian Greens or Labor, American Democrats or British Labour Party. Conservative/ right wing examples are Australian Coalition, American Republicans or British Conservative Party) strongly progressive/ left wing, moderately progressive/ left wing, slightly progressive/ left wing, neither progressive/ left wing nor conservative/ right wing, slightly conservative/ right wing, moderate conservative/ right wing, strongly conservative/ right wing
Body modification

9. How many piercings do you have? [numerical input]
10. How many tattoos do you have? [numerical input]
11. How many other body modifications do you have (e.g. scarification, branding etc) [numerical input]

Eating Disorder Screen for Primary Care ESP (Y/N) (request sent)

12. Are you satisfied with your eating patterns?
13. Do you ever eat in secret?
14. Does your weight affect the way you feel about yourself?
15. Have any members of your family suffered with an eating disorder?
16. Do you currently suffer with or have you ever suffered in the past with an eating disorder?

Body Satisfaction Scale (BSS) (1 – very satisfied – 7 = very dissatisfied)

17. Head
18. Face
19. Jaw
20. Nose
21. Mouth
22. Teeth
23. Eyes
24. Ears
25. Shoulders
26. Neck
27. Chest
28. Stomach
29. Arms
30. Legs
31. Hands
32. Feet

[For those answering ‘Female’ above] Genital Appearance Satisfaction Scale (GAS)
(request sent) (Never/Sometimes/Often/Always)

33. I feel that my genitals are normal in appearance
34. I feel that my genitals are unattractive in appearance
35. I feel that my labia are too large
36. I am satisfied with the appearance of my genitals
37. I experience irritation to my labia when exercising/ walking
38. I feel, or have felt, conscious in sexual situations because of the appearance of my genitals
39. Embarrassment about the appearance of my genitals spoils my enjoyment of sex
40. I feel discomfort around my genitals when I wear tight clothes
41. I feel that my genital area is visible under tight clothes
42. I worry about the appearance of my vaginal area
43. I feel that my genital area look asymmetric or ‘lopsided’
[For those answering ‘Male’ above] Male Genital Self-Image Scale (MGSIS) (request sent) (Strongly disagree/ Disagree/ Agree/ Strongly agree)

44. I feel positively about my genitals
45. I am satisfied with the appearance of my genitals
46. I would feel comfortable letting a sexual partner look at my genitals.
47. I think my genitals work the way they are supposed to work
48. I am not embarrassed about my genitals

Objectified Body Consciousness Scale (OBC) (1=strongly disagree – 7=strongly agree)

49. I rarely think about how I look
50. When I can’t control my weight, I feel like something must be wrong with me
51. I think it is more important that my clothes are comfortable than whether they look good on me
52. I think a person is pretty much stuck with the looks they are born with
53. I feel ashamed of myself when I haven’t made the effort to look my best
54. A large part of being in shape is having that kind of body in the first place
55. I think more about how my body feels than how my body looks
56. I feel like a must be a bad person when I don’t look as good as I could
57. I rarely compare how I look with how other people look
58. I think a person can look pretty much how they want to if they are willing to work at it.
59. I would be ashamed for people to know what I really weigh
60. I really don’t think I have much control over how my body looks
61. Even when I can’t control my weight, I think I’m an okay person.

62. During the day, I think about how I look many times.

63. I never worry that something is wrong with me when I am not exercising as much as I should.

64. I often worry about whether the clothes I am wearing make me look good.

65. When I’m not exercising enough, I question whether I am a good enough person.

66. I rarely worry about how I look to other people.

67. I think a person’s weight is mostly determined by the genes they are born with.

68. I am more concerned with what my body can do than how it looks.

69. It doesn’t matter how hard I try to change my weight it’s probably always going to be about the same.

70. When I’m not the size I think I should be, I feel ashamed.

71. I can weigh what I’m supposed to when I try hard enough.

72. The shape you are in depends mostly on your genes.

73. Has anyone ever made a negative comment about the appearance of your genitals (either to you directly, that you overheard, or that was reported back to you)?

74. [If ‘Female’] Have you ever heard, or heard of, people making negative comments about the appearance of other women’s genitals?

75. [If ‘Male’] Have you ever heard, or heard of, people making negative comments about the appearance of other men’s genitals?
76. [For ‘Heterosexual’ AND ‘Male’ OR ‘Homosexual’ AND ‘Female’ OR ‘Bisexual’] Do you have a preference for the appearance of the vulva of your female sexual partners? [Y/N]

77. [If ‘Y’] What is your preference [long answer]

Acceptance of Cosmetic Surgery Scale (ACSS) (1 = strongly disagree – 7 = strongly agree)

78. It makes sense to have minor cosmetic surgery rather than spending years feeling bad about the way you look

79. Cosmetic surgery is a good thing because it can help people feel better about themselves

80. In the future, I could end up having some kind of cosmetic surgery

81. People who are very unhappy with their physical appearance should consider cosmetic surgery as one option

82. If cosmetic surgery can make someone happier with the way they look, then they should try it

83. If I could have a surgical procedure done for free I would consider trying cosmetic surgery

84. If I knew there would be no negative side effects or pain, I would like to try cosmetic surgery

85. I have sometimes thought about having cosmetic surgery

86. I would seriously consider having cosmetic surgery if my partner thought it was a good idea

87. I would never have any kind of plastic surgery
88. I would think about having cosmetic surgery in order to keep looking young
89. If it would benefit my career I would think about having plastic surgery
90. I would seriously consider having cosmetic surgery if I thought my partner would find me more attractive
91. Cosmetic surgery can be a big benefit to people's self-image
92. If a simple cosmetic surgery procedure would make me more attractive to others, I would think about trying it

Have you ever had any of the following surgical procedures [tick all that apply]:

93. Liposuction
94. Eyelid surgery
95. Facelift/ Forehead lift/ Thread lift
96. Abdominoplasty (tummy tuck)
97. Spider vein treatment
98. Gynecomastia (male breast reduction)
99. Nose reshaping
100. Ear surgery
101. Chin reshaping
102. Cheek implant
103. Lip implant
104. Breast lift
105. Breast reduction
106. Labiaplasty
107. Other genital cosmetic surgery
108. Thigh lift/ Buttock lift
109. Lower body lift
110. Hair transplant/restoration
111. Buttock implants
112. Calf implants
113. Pectoral implants
114. Penile enlargement
115. Other
116. No cosmetic surgery

Have you ever considered any of the following surgical procedures [tick all that apply]

117. Liposuction
118. Eyelid surgery
119. Facelift/ Forehead lift/ Thread lift
120. Abdominoplasty (tummy tuck)
121. Spider vein treatment
122. Gynecomastia (male breast reduction)
123. Nose reshaping
124. Ear surgery
125. Chin reshaping
126. Cheek implant
127. Lip implant
128. Breast lift
129. Breast reduction
130. Labiaplasty
131. Other genital cosmetic surgery
132. Thigh lift/ Buttock lift
133. Lower body lift
134. Hair transplant/restoration
135. Buttock implants
136. Calf implants
137. Pectoral implants
138. Penile enlargement
139. Other
140. No cosmetic surgery

Would you be open to any of these procedures at any time in the future [tick all that apply]?

141. Liposuction
142. Eyelid surgery
143. Facelift/ Forehead lift/ Thread lift
144. Abdominoplasty (tummy tuck)
145. Spider vein treatment
146. Gynecomastia (male breast reduction)
147. Nose reshaping
148. Ear surgery
149. Chin reshaping
150. Cheek implant
151. Lip implant
152. Breast lift
153. Breast reduction
154. Labiaplasty
155. Other genital cosmetic surgery
156. Thigh lift/ Buttock lift
157. Lower body lift
158. Hair transplant/restoration
159. Buttock implants
160. Calf implants
161. Pectoral implants
162. Penile enlargement
163. Other
164. No cosmetic surgery

165. Have you ever viewed pornography? [Y/N]
166. [If ‘Y’] How often do you view pornography? (Never; Monthly or less; 2-4 times a month; 2-3 times a week; 4 times or more a week)
167. [If ‘Y’ to porn] What types of pornography do you usually view [please select up to three options]
168. Professionally produced videos or film
169. Amateur videos or film
170. Professionally produced still photographs
171. Amateur still photographs
172. Live webcam pornography
173. Live Shows (peep/ strip)
174. ‘Soft’ pornographic magazines (available in newsagents)
175. ‘Hard’ pornographic magazine (available in specialist stores)
176. Erotic novels
177. Erotic films
178. Other (please specify)
179. [If ‘Y’ to porn] What genres of pornography do you usually view [please select up to three options]
180. Masturbation (female)
181. Masturbation (male)
182. Heterosexual/ vaginal
183. Same sex (female)
184. Same sex (male)
185. Anal sex
186. Oral sex
187. Gonzo
188. Multiple partners
189. BDSM
190. Fetish
191. Other (please specify)

Have you or anyone in your family ever experienced depression? (Depression is a period of two weeks or more when a person felt down, and/or lost interest or enjoyment in activities, and/or was tired and lacked energy? At this time, people may also experience: Loss of confidence in themselves or poor self-esteem Feeling guilty when they are not at fault Wishing they were dead Difficulty concentrating or making decisions Moving more slowly or, sometimes becoming agitated and unable to settle
Having sleeping difficulties or, sometimes, sleeping too much. Loss of interest in food or, sometimes eating too much. Changes in eating habits may lead to either loss of weight or putting on weight.)

192. I have experienced depression.
193. Someone in my family has experienced depression.

Have you or anyone in your family ever experienced any other mental disorder (e.g. schizophrenia, bipolar disorder, anxiety disorders)?

194. I have experienced a mental disorder other than depression.
195. Someone in my family has experienced a mental disorder other than depression.

196. Do you smoke? Daily, Occasionally, Never
197. [If daily] How many cigarettes do you smoke each day [numerical input]
198. [if daily] How soon after you wake up do you usually smoke your first cigarette? Within 5 minutes, from 6 to 30 minutes, from 31-60 minutes, after 60 minutes

AUDIT-C

199. How often do you have a drink containing alcohol? Never, Monthly or less, 2-4 times a month, 2-3 times a week, 4 times or more a week
200. How many standard drinks containing alcohol do you have on a typical day? 1 or 2, 3 or 4, 5 or 6, 7 to 9, 10 or more
201. How often do you have six or more drinks on one occasion? Never, Less than monthly, Monthly, Weekly, Daily or almost daily
ASSIST (Items 1 and 2)

In your life, which of the following have you ever used? [Y/N]

202. Cannabis (marijuana, pot, grass, hash etc)
203. Cocaine (coke, crack etc)
204. Amphetamine type stimulants (speed, diet pills, ecstasy etc)
205. Inhalants (nitrous, glue, petrol, paint thinner etc)
206. Sedatives or Sleeping Pills (Valium, Serepax, Rohypnol etc)
207. Hallucinogens (LSD, acid, mushrooms, PSP, Special K etc)
208. Opioids (heroin, morphine, methadone, codeine etc)

[Substances marked ‘Y’] In the past three months how often have you used the following substances? [Never, Once or twice, Monthly, Weekly, Daily or almost daily]

209. Cannabis (marijuana, pot, grass, hash etc)
210. Cocaine (coke, crack etc)
211. Amphetamine type stimulants (speed, diet pills, ecstasy etc)
212. Inhalants (nitrous, glue, petrol, paint thinner etc)
213. Sedatives or Sleeping Pills (Valium, Serepax, Rohypnol etc)
214. Hallucinogens (LSD, acid, mushrooms, PSP, Special K etc)
215. Opioids (heroin, morphine, methadone, codeine etc)

BFI-10 (1 = disagree strongly – 5 = agree strongly) I see myself as someone who…

216. Is reserved
217. Is generally trusting
218. Tends to be lazy
219. Is relaxed, handles stress well
220. Has few artistic interests
221. Is outgoing, sociable
222. Tends to find fault with others
223. Does a thorough job
224. Gets nervous easily
225. Has an active imagination

Rosenberg Self-Esteem Scale (RSES) (1= strongly agree – 4=strongly disagree)

226. On the whole, I am satisfied with myself
227. At times I think I am no good at all
228. I feel that I have a number of good qualities
229. I am able to do things as well as most other people
230. I feel I do not have much to be proud of
231. I certainly feel useless at times
232. I feel that I’m a person of worth
233. I wish I could have more respect for myself
234. All in all, I am inclined to think that I am a failure
235. I take a positive attitude towards myself

New General Self-Efficacy (NGSE) Please use the scale below to rate your agreement (or disagreement) with each of the following statements about yourself.) (1=strongly disagree – 5=strongly agree)
236. I will be able to achieve most of the goals that I have set for myself
237. When facing difficult tasks, I am certain that I will accomplish them
238. In general, I think that I can obtain outcomes that are important to me
239. I believe I can succeed at most any endeavour to which I set my mind
240. I will be able to successfully overcome many challenges
241. I am confident that I can perform effectively on many different tasks
242. Compared to other people, I can do most tasks very well
243. Even when things are tough, I can perform quite well

CES-D During the past week (rarely or none of the time, some or a little of the time, occasionally or a moderate amount of time, most or all of the time)

244. I was bothered by things that usually don’t bother me
245. I did not feel like eating; my appetite was poor
246. I felt that I could no shake off the blues, even with help from my family or friends
247. I felt that I was just as good as other people
248. I had trouble keeping my mind on what I was doing
249. I felt depressed
250. I felt that everything I did was an effort
251. I felt hopeful about the future
252. I thought my life had been a failure
253. I felt fearful
254. My sleep was restless
255. I was happy
256. I talked less than usual
257. I felt lonely
258. People were unfriendly
259. I enjoyed life
260. I had crying spells
261. I felt sad
262. I felt that people dislike me
263. I could not get “going”

GAD-7 Over the last 2 weeks how often have you been bothered by the following problems? (not at all, several days, more than half the days, nearly every day)

264. Feeling nervous, anxious or on edge
265. Not being able to stop or control worrying
266. Worrying too much about different things
267. Trouble relaxing
268. Being so restless that it is hard to sit still
269. Becoming easily annoyed or irritable
270. Feeling afraid as if something awful might happen

Daily sexist events objectification subscale (How often in the previous six months:

Never, ~once, ~one a month, ~once a week, ~two times or more per week)

271. Had people should sexist comments, whistle, or make catcalls at me
272. Had someone refer to me with a demeaning or degrading label specific to my gender (bitch, chick, bastard, faggot etc.)
273. Had sexist comments about parts of my body or clothing
274. Heard someone make comments about sexual behaviour I might do or things they would want to do with me
275. Had someone do or say something that made me feel threatened sexually
276. Experienced unwanted staring or ogling at myself or parts of my body when the person knew or should have known I was not interested or it was inappropriate for the situation or our relationship
277. Experienced unwanted flirting when the person knew or should have known I was not interested or it was inappropriate for the situation or our relationship.

Mental Health Continuum Short Form (MHC-SF) During the past [timeframe] how often did you feel. (never, once or twice a month, about once a week, two or three times a week, almost every day, every day)

278. Happy
279. Interested in life
280. Satisfied
281. That you had something important to contribute to society
282. That you belonged to a community (like a social group or your neighbourhood)
283. That our society is becoming a better place for people like you
284. That people are basically good
285. That the way our society works makes sense to you
286. That you liked most parts of your personality
287. Good at managing the responsibilities of your daily life
288. That you had warm and trusting relationships with others
289. That you had experiences that challenged you to grow and become a better person
290. Confident to think or express your own ideas and opinions

Connor-Davidson Resilience Scale (CD-RISC) (last month) (not true at all, rarely true, sometimes true, often true, true nearly all the time)

291. I am able to adapt when changes occur
292. I can deal with whatever comes my way
293. I try to see the humorous side of things when I am faced with problems
294. Having to cope with stress can make me stronger
295. I tend to bounce back after illness, injury or other hardships
296. I believe I can achieve my goals, even if there are obstacles
297. Under pressure, I stay focused and think clearly
298. I am not easily discouraged by failure
299. I think of myself as a strong person when dealing with life’s challenges and difficulties
300. I am able to handle unpleasant or painful feelings like sadness, fear and anger

301. Have you ever attempted suicide? [Y/N]
302. Have you ever deliberately harmed yourself without the intention to suicide? [Y/N]

BOILERPLATE: If you are in an emergency, please call 000. If you are distressed, please call Lifeline on 13 11 14 or the Suicide Call Back Service on 1300 659 467.