

The Effects of Thin-Ideal Internalization, Body Surveillance and Self-Silencing on the Eating Attitudes of Women with Vision Impairment

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Declaration

I declare that this thesis is my own work, based upon my own personal research/study and I have acknowledged all material and resources used in the execution of the research and the preparation of the thesis, whether they be books, articles, reports, or any other kind of document, including cloud based material, and personal communication. I also declare that this thesis has not been previously submitted for any unit or course of study at this or any other institution and that I have not copied in part or whole or otherwise plagiarised the work of another person or student. I understand that there may be severe penalties, including exclusion from the School and College, for providing a false declaration.

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Abstract

Past research reveals internalization of the thin-ideal and subscription to gender-based discourses, indicated by the uptake of body surveillance and self-silencing, are significant variables effecting the disordered eating attitudes in fully-sighted women. It is uncertain as to how visual aspects of these variables predict the disordered eating attitudes of women who are legally blind. Past research has revealed internalization of the thin-ideal in women living with vision impairment is a significant predictor of disordered eating attitudes in these women. However, women with vision impairment also report significantly lower disordered eating attitudes compared with fully-sighted controls. The current study therefore explored how internalization of the thin-ideal and subscription to gender-based discourses, indicated by the uptake of body surveillance and self-silencing, predicted the disordered eating attitudes of 80 women who are legally blind. Participants completed an online survey comprising existing validated measures of all variables. Results revealed internalization of the thin-ideal was associated with greater levels of body surveillance and self-silencing as two separate gender related discourses, both of which independently predicted higher levels of body shame and subsequent disordered eating attitudes. Results support that women living with vision impairment are susceptible to internalizing harmful messages related to socio-cultural standards of beauty, and provide further support for including the subscription to gender-related discourses in understanding women's body-image disturbances. The current study also emphasises the importance of body shame as a direct predictor in the mediation pathway which predicts disordered eating attitudes in women living with vision impairment.

Keywords: Vision impairment, Disordered eating attitudes, Objectification, Body surveillance, Body shame, Self-silencing, Thin-ideal internalization

The Effects of Thin-Ideal Internalization, Body Surveillance and

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“The fight is not against blindness. The fight is against shame” (Thomas & Schones, 2015). The investigation of body image concerns in women with Vision Impairment (VI) is sparsely represented within the research literature. Initially it was thought that the visual experience of the thin-ideal portrayed in the media, which promotes both body dissatisfaction and negative eating attitudes, was related to systematic differences between women who are fully sighted and women with VI (Baker, Sivyer & Towell, 1998). Women with VI were believed to be protected from developing an eating disorder due to a reduced visual exposure of the thin-ideal in the media, as well as a limited capacity to check their appearance in mirrors and visually represent the body. However, case studies of women with VI diagnosed with an eating disorder have revealed that both body dissatisfaction and body image disturbances can contribute to the drive for thinness in women with VI (Bemporad, Hoffman, & Herzog, 1989; Dunn & Coorey, 1982; Thomas, Weigel, Lawton, Levendusky & Becker, 2012; Sharp, 1993; Simeunovic-Ostojic & Hansen, 2013). Although it is now established that women with VI are susceptible to developing an eating disorder, recent studies have revealed non-clinical samples of women with VI report significantly lower levels of body shape dissatisfaction and disordered eating attitudes compared with fully sighted controls (Ashikali & Dittmar, 2010; Baker et al., 1998). Research investigating these systematic differences found that internalization of the thin-ideal remained a significant risk factor for disordered eating attitudes in women with VI (Ashikali & Dittmar, 2010). A possible explanation for these discrepancies between women with VI and fully-sighted women may be understood by considering the extent to which women with VI subscribe to gender-related discourses, specifically, self-silencing and body surveillance. The present research, therefore, aimed to explore the extent to which internalization of the thin ideal, and two gender-related

discourses – body surveillance and self-silencing – contributed to the disordered eating attitudes of women living with VI.

The Socio-Cultural Model: Effects of thin-ideal internalization in sighted women

The aetiology of eating disorders is driven predominantly by body image disturbances. The tripartite influence model (Thompson & Stice, 2001) based on sociocultural theories of body image disturbances (Keel & Forney, 2013) theorizes that social influences, such as peers, family and the media, pressure individuals to adhere to culturally defined standards of beauty (Stice & Argus, 1998). These ideals are centred on the importance of being thin for women, and muscular for men. Individuals then internalize these appearance ideals so that the standards appear to originate from within the self. The ideal is described by individuals as part of their own personal belief of what constitutes attractiveness and beauty. The internalization results in weight concern and body dissatisfaction (Keel & Forney, 2013), both of which have been established as contributing risk factors for disordered eating behaviours, such as restrictive eating, binge eating and excessive dieting behaviour (Stice, 2002).

A vast range of both correlational and experimental research has linked the extent of exposure to the visual media, including television and magazines, with body dissatisfaction, thin-ideal internalization and disordered eating in fully-sighted women (e.g., Hausenblas, Campbell, Menzel, Doughty, Levine & Thompson, 2013; Levine & Murnen, 2009). Correlational studies conducted on 175 fully-sighted female undergraduate students aged 17-25 reveal that the pressure from the media is linked to internalization of the thin-ideal, which is related to increases in the probability of various disordered eating behaviours (Thompson, Van den Berg, Roehrig, Guarda & Heinberg, 2004). Similarly, experimental studies investigating body-focused anxiety in 150 adult professional working women revealed that participants high in levels of thin-ideal internalization experienced increased body

dissatisfaction after being exposed to images of thin models (Dittmar & Howard, 2004).

Further, Smolak, Levine and Thompson (2001) conducted research investigating the internalization of the thin-ideal in 248 girls aged 11-14 years. Multiple regression analyses revealed 48% of the variance in weight control habits of participants was explained by media awareness, thin-ideal internalization and body mass index (BMI), with internalization of the thin-ideal remaining the only statistically significant predictor in the final regression model of weight control habits. The existing literature highlights the importance of the internalization of the thin-ideal as a significant variable influencing the disordered eating attitudes and weight control habits of fully sighted females from a range of ages.

The Case of Vision Impairment

The role of visual images in the media and their impact on the internalization of the thin-ideal in women who are legally blind has been under researched. For the purpose of the current study, the term 'Vision Impairment' will be used to refer to those who are legally blind. Visual acuity tests measure the ability to see fine detail, and visual field tests examine the extent of available peripheral vision. Legal Blindness is characterised by either a visual acuity of 6/60 or less on the Snellen Eye Chart, or a field of vision decreased to less than 20 degrees in diameter. Common causes of severe vision loss and blindness include; cataracts, macular degeneration, diabetic retinopathy, hereditary childhood conditions and complications of the brain due to stroke, prematurity or trauma (otherwise known as cortical vision impairment).

Studies have suggested that women with VI are protected from developing body-shape dissatisfaction and disordered eating attitudes, due to decreased visual exposure of the thin-ideal in the media (Baker et al., 1998). Baker et al. (1998) first examined body-shape dissatisfaction and disordered eating attitudes in women with VI. The study recruited 20 congenitally blind, 20 blinded later in life and 20 fully sighted women aged 20-35 years to

complete a questionnaire. Statistical analyses revealed an overall significant difference in levels of body-shape dissatisfaction and disordered eating attitudes among the participants. Fully sighted participants displayed significantly higher levels of body-shape dissatisfaction and disordered eating attitudes compared with those who were congenitally blind and blinded later in life. Following this pattern, women blinded later in life demonstrated significantly higher levels of body shape dissatisfaction and disordered eating attitudes than women who were congenitally blind. Therefore, the study concluded that, in the sample, congenitally blind women had the lowest levels of body-shape dissatisfaction and disordered eating attitudes. This provided evidence to suggest that the visual experience is essential to systematic difference in levels of reported satisfaction with one's own body compared with sighted women, and thus also the extent to which disordered eating attitudes occur.

Contemporary research has expanded our understanding of these systematic differences in disordered eating attitudes by investigating body-shape dissatisfaction, awareness of the thin-ideal, internalization of the thin-ideal, and the degree to which appearance was central to self-concept in women with VI (Ashikali & Dittmar, 2010). It was revealed that of the 21 congenitally blind, 11 blinded later in life, and 60 fully sighted women who completed the survey, women with VI exhibited significantly lower levels of body-shape dissatisfaction and disordered eating attitudes compared with sighted controls. These results supported the conclusions of Baker et al. (1998). The study further expanded the analysis to include variables of thin-ideal internalization, and found that women with VI exhibited significantly lower levels of awareness of the thin-ideal, internalization of the thin-ideal and appearance as a source of self-worth compared to fully-sighted controls. In a regression analysis, awareness and internalization of the thin-ideal remained the only direct significant predictors of restrictive eating behaviours in women with VI. Ashikali and Dittmar (2010) conclude that visual exposure to images of thinness in the media is essential to the degree to

which women with VI are aware of and internalize the thin-ideal, however, women with VI are still able to internalize ideal messages of thinness which are related to greater disordered eating attitudes (Ashikali & Dittmar, 2010). The systematic differences in levels of disordered eating attitudes between fully-sighted women and women with VI coincide with notions of the tripartite influence model based on Socio-Cultural theories of body-image disturbances (Stice & Argus, 1998), emphasizing the importance of visual images of thinness in the media for body related mental health concerns in women.

Both studies reveal significantly lower levels of body-shape dissatisfaction, internalization of the thin-ideal and disordered eating attitudes between women with VI and fully-sighted controls (Ashikali & Dittmar, 2010; Baker et al., 1998). Thus, past research utilising sighted-only samples offers limited understanding of the impact that the visual media has in contributing to women's body image concerns. The internalization of the visual depiction of thinness portrayed by the media and its associated values of beauty and unrealistic body image ideals was significantly lower in women with VI compared with fully sighted controls. However, internalization of the thin-ideal remained a significant and unique contributing predictor of disordered eating attitudes and body dissatisfaction in women with VI (Ashikali & Dittmar, 2010). This finding is particularly interesting, as it reveals that although visual images conveyed through the vehicle of the media are quite pervasive to the body image concerns of fully-sighted women (Hausenblas et al., 2013), internalization of the thin-ideal can still permeate the lives of women who do not have access to visual representations of the thin-ideal in the media. Internalization of the thin-ideal is still associated with increased reported disordered eating attitudes in women with VI.

The studies presented so far propose an incoherence between reported levels of body-shape dissatisfaction and disordered eating attitudes revealed in women with VI compared with those who are fully-sighted. There are 11 case studies in the literature reporting women

with congenital VI diagnosed with an eating disorder, such as Bulimia Nervosa (BN) or Anorexia Nervosa (AN). Exploring the extent to which body-shape dissatisfaction was reported as a causal or contributing factor in these cases can expand our understanding for the importance of visually representing the body and living up to a certain thin-ideal in relation to the disordered eating attitudes in women with VI. A single case of BN (Simeunovic-Ostojic & Hansen, 2013) and four separate cases of AN (Bemporad et al., 1989; Dunn & Coorey, 1982; Thomas et al, 2012; Sharp, 1993) identify body-shape dissatisfaction and body image disturbances as perpetuating and contributing features of the disorder. This is consistent with the findings of Ashikali and Dittmar (2010), in that, although non-clinical samples of women with VI report lower levels of body-shape dissatisfaction; internalization of the thin-ideal is still a significant risk factor for disordered eating behaviours in women with VI. It is of particular interest that, of the case studies presented, the progression and symptomology of the disorder was described as similar to that of fully-sighted women diagnosed with AN/BN. Living up to a thin-ideal and body-shape dissatisfaction contributed to the aetiology of eating disorders in women with VI. Expanding on this, Simeunovic-Ostojic and Hansen (2013) reported the case of a 28-year-old congenitally blind woman who exhibited body-shape dissatisfaction as characteristic for her unrealistic drive for thinness. Investigating the aetiology of eating disorders in women with VI may offer further insight into the importance of socio-cultural pressures and thin-ideal internalization in promoting body-shape dissatisfaction.

In further support of these findings, qualitative research by Kaplan-Myrth (2000) examined body image issues in 13 participants with VI. The research utilised semi-structured interviews on a sample consisting of one adult female, nine adolescent females and three adolescent males, with the purpose of addressing what those with VI know about their bodies, how they imagine their bodies, how their identities relate to their VI, and how they

experience their bodies. Conclusions were drawn from four main areas of body-image enquiry: knowledge, self-image, identity, and experience. The study supports the importance of body image disturbances and presence of body-shape dissatisfaction as contributing to the eating attitudes of those with VI. Kaplan-Myrth (2000) concluded that contrary to predictions, participants with VI were still quite concerned overall with their appearance, and were found to be extremely self-conscious.

However, among the 11 case studies of women with VI diagnosed with an eating disorder, six of these cases were published describing central contributing factors unrelated to body-shape dissatisfaction. These cases did not indicate disturbed body-shape dissatisfaction or internalizing the thin-ideal as essential to contributing to the disorder. The single case of BN (Fernández-Aranda, Crespo, Jiménez-Murcia, Krug & Vallejo-Ruiloba, 2006) and five cases of AN (McFarlane, 1989; Touyz, O'Sullivan, Gertler & Beumont, 1988; Vandereycken, 1986; Yager, Hatton, & Ma, 1986) identify other life stressors as central to the aetiology of the disorder in women with VI. These enhanced life-stressors included: developmental problems (McFarlane, 1989), susceptibility to misperceiving body size and weight (Vandereycken, 1986; Thomas et al., 2012) and maladaptive stress-coping mechanisms (Fernández-Aranda et al., 2006). Expanding on this, Vandereycken (1986) identifies two cases of AN in adolescents with VI who describe a series of psycho-social problems attributable to VI which were concluded as heightening the development of the disorder. These life stressors included marked increase in developmental struggles with independence, inadequacy, resentment and hostility during adolescence. Further, the case of a 19 year old congenitally blind woman with AN was described by Touyz et al. (1988). The aetiology of restrictive eating behaviours was described as a severe struggle with issues of autonomy and independence, along with concerns for issues of mobility and plans for the future. These are marked concerns for people with VI. The case reported increased life stressors, striving for

independence and reliance on comments made by her mother about her physical appearance as the cause of the patient's restrictive eating. Vandereycken (1986) suggests that when women with VI diagnosed with an eating disorder claim to "feel fat", the phenomenon is far more complex than simply visually judging dimensions of the external body-shape. Factors such as interoception, proprioception and cognition must be taken into account. Qualitative research challenged this notion (Kaplan-Myrth, 2000). Non-clinical samples of participants with VI were interviewed and found participants placed very little importance on their corporeal senses when discussing awareness of their appearance.

The observed tension among issues of the importance of body-shape disturbances in the aetiology of eating disorders in women with VI continues in a recent case study. Thomas et al. (2012) explores the case of a woman with VI and her ten year history with AN. The case offers a dynamic insight into the myriad of factors affecting the eating attitudes of women with VI. The case explores the motivations of a woman's first two admissions to an eating disorder clinic when she was 19 years of age. Reported contributing factors for the disorder included: self-esteem gained from controlling and restricting food intake, and fears of maturing due to a craving of motherly affection and care. It was not until the third admission to the clinic at age 20 that the patient manifested body-shape dissatisfaction, characterised by attempted mirror checking and body related comparisons. It is of particular interest to note that body-shape dissatisfaction was not a prerequisite for the development of disordered eating attitudes in women with VI, however, even with vision loss, body-shape dissatisfaction can still occur in these women. The study highlights vision loss may lead to unique challenges faced by those with body image concerns and disordered eating attitudes, distinct from those faced by fully-sighted women. Thomas et al. (2012) emphasised women with VI may have a repeated need to rely on suppositions about their physical appearance

from others and inhibited corrective visual feedback of appearance. These were suggested as being imperative to increased body-related cognitive distortions in women with VI.

Regardless of the reported aetiology of eating disorders in women with VI, the presence of inconsistency within the literature reveals that, although the visual experience is an integral component of body-shape dissatisfaction and disordered eating attitudes in women with VI, it is not the only factor to be considered in understanding the body image issues of these women. Body-shape dissatisfaction can still occur in women with VI, however is not necessary to the development of an eating disorder. Many of the factors related to the disordered eating attitudes of women with VI are unknown and under-researched. The examination of both case study and qualitative research is essential to gaining a comprehensive understanding of the experiences of women with VI and their understandings of body related issues. Although VI is investigated within the context of its influence on body-shape dissatisfaction and disordered eating attitudes, it is clear from the evidence presented that disordered eating attitudes are situated within a broader framework encompassing the identity struggle of living with VI in a sighted world. Struggles with independence and issues of control are persistent life stressors highlighted in past research.

The Effect of Subscription to Gender Discourses

The internalization of the thin-ideal in the media and the sociocultural model of body image disturbances offers a limited understanding for the eating attitudes of women with VI. Therefore, it is essential to further investigate how the internalization of the thin-ideal and other variables contribute to the various eating attitudes of women with VI. The claim by Gatens (1991) and Grosz (1994) that body image arises from sex-specific bodies is strongly influenced by ideas of “femininity” and “masculinity” (Gatens, 1991; Grosz, 1994). There are two gender discourses which have significant repercussions for how women experience their bodies (Morrison & Sheahan, 2009). Taken from a feminist perspective, objectified

body consciousness and self-silencing are central to what it means to be a woman in contemporary post-industrialized Western society. It is therefore necessary for issues of the internalization of the thin-ideal in the media and how women living with VI internalise the ideal to be contextualised within the experience of gender (Piran & Cormier, 2005).

Objectified Body Consciousness. Notions of Objectification Theory (Fredrickson & Roberts, 1997) can be useful in understanding how experiences of the sexual objectification of women explain mental health issues such as disordered eating behaviours. The female body is constructed as an object, and with this interpretation, women learn to view their bodies from the perspective of an outside observer (McKinley & Hyde, 1996). The internalization of the other's perspective of the body is known as self-objectification. Self-objectification leads women to self-surveil their bodies, to experience shame, and believe that their body appearance should be controlled (Moradi & Huang, 2008). In the objectified body, "Men look at women. Women watch themselves being looked at. This determines not only the relations of men to women, but the relations of women to themselves" (Berger, 1988, p. 47).

Feminist analyses of body related issues state that the degree of external surveillance of the body is a significant concern in how women experience their bodies. In fully-sighted women, body surveillance has been found to correlate significantly with increased levels of body shame and various mental health issues, such as disordered eating attitudes and depressed mood (Moradi, Dirks & Matteson, 2005; Tiggemann & Kuring, 2004). A recent study provided strong evidence in the support of Objectification Theory and the role self-objectification plays in predicting mental health issues in young women (Tiggemann & Williams, 2012). The model by Tiggemann and Williams (2012) was successful in predicting 93% of the variance of disordered eating attitudes in a sample of 116 Australian female undergraduate students. The model proposes that self-objectification leads to body

surveillance, which subsequently leads to body shame and finally disordered eating attitudes. In this model, body surveillance was not a unique predictor of disordered eating attitudes, compelling the importance of body shame as a direct predictor in the mediational pathway predicting the disordered eating attitudes in fully sighted women. Other findings corroborate the importance of body shame as a direct predictor in contributing to disordered eating attitudes (Calogero & Pina, 2011; Chen & Russo, 2010; Hurt, Nelson, Turner, Haines, Ramsey, Erchull et al., 2007; Moradi et al., 2005; Tiggemann & Kuring, 2004), providing further empirical evidence for Objectification Theory and the relation of body shame to both body surveillance and self-objectification.

However, the studies presented thus far did not investigate thin-ideal internalization and its association with the self-objectification process. Understanding Objectification Theory (Fredrickson & Roberts, 1997) and objectification processes in conjunction with the internalization of socio-cultural standards of beauty (Heinberg, Thompson & Stormer, 1995) through social influences such as the media, is imperative to a comprehensive understanding of the disordered eating attitudes of fully sighted women. Recent studies provide empirical evidence to support the internalization of the thin-ideal and its relation of vulnerability toward the endorsement of objectification processes. Objectification processes are signified by the uptake in practices of body surveillance resulting in increased levels of body shame. The belief that the body is somehow inherently wrong is associated with disordered eating attitudes, as women who hold this belief attempt to control, monitor and subsequently deprive themselves in the attempt to try and control the body (Calogero, Davis & Thompson, 2005; Dakanalis, Carrà, Calogero, Fida, Clerici, Zanetti, & Riva, 2015; Moradi et al., 2005; Morrison & Sheahan, 2009; Watson, Ancis, White, & Nazari, 2013; for an overview please see: Fitzsimmons-Craft, 2011; Moradi & Huang, 2008).

In one study, surveys were administered to a sample of 209 women in residential treatment for eating disorders to measure extent of self-objectification, body shame, media influence and drive for thinness (Calogero et al., 2005). The study found self-objectification partially mediated the link between internalization of thin-ideal and disordered weight control. Body shame was also found to partially mediate the relationship between self-objectification and the drive for thinness.

Further, a recent longitudinal study collected data from 685 adolescents aged between 14 and 15 at baseline (53% female) over a three year period (Dakanalis et al., 2015). The researchers examined links theorized in Objectification Theory (self-objectification, body surveillance and body shame) among thin-ideal internalization and dietary restraint. The researchers found internalization of the thin-ideal predicted body surveillance, which then predicted eventual body shame. These negative emotional experiences predicted subsequent dietary restraint.

The findings so far highlight a fundamental importance to understanding how cultural standards embodied by gendered beauty ideals and self-objectification processes negatively influence sighted women's feelings, thoughts and behaviours surrounding their own body. Studies support that idealistic images of gendered-beauty portrayed in the visual media encourage women to internalize these socio-cultural standards of western beauty as part of their self-concept. Women who internalize the thin-ideal, through the process of self-objectification and body surveillance, report higher levels of body shame and subsequent disordered eating attitudes. These relationships are depicted in Figure 1. These studies highlight how ideal standards of beauty depicted by the media are associated with the objectification of women and subscription to gender related discourses, with subsequent mental health ramifications.

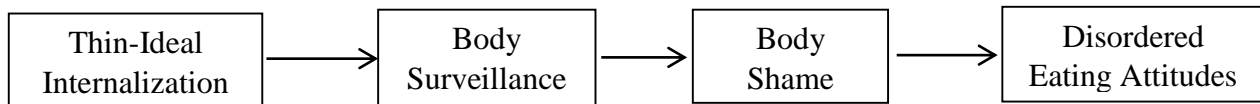


Figure 1. Conceptual model of Disordered Eating Attitudes in Fully Sighted Women

However, no known research has investigated the role of these variables and their relationship with the disordered eating attitudes of women living with VI. Due to severe vision loss, women with VI may have a reduced visual experience of their world, a reduced visual representation of their own external body appearance and limited access to images of the thin-ideal propelled through the visual media. It is currently unclear as to how this may be related to the extent to which self-objectification processes, such as body surveillance, occur in women with VI.

Self-Silencing. Similarly, self-silencing is a central component of gender discourse for women. Recently, research investigating the disordered eating attitudes in sighted women and the internalization of specific social discourses found that women who self-silence tend to ignore their own feelings and needs in order to attend to the desires and expectations of society (Ross & Wade, 2003). This internalized state of socialized patterns which expects women to be caregivers and put the needs of others before their own, contributes to the development of fully-sighted women's lowered self-esteem, depressive symptoms, loss of self (Jack & Dill, 1992) and eating disorders (Geller, Cockell, Hewitt, Goldner & Flett, 2000). More recently, research has revealed self-silencing as a significant predictor in the disordered eating attitudes found in a non-clinical sample of fully sighted women (Piran & Cormier, 2005). The study collected surveys from 394 young sighted women in the community and concluded that a greater tendency to self-silence predicted disordered eating attitudes as well as shape preoccupation. Self-silencing was also established as a significant predictor of disordered eating patterns. Similar results were obtained in a recent study of 216 women, between the ages of 17 and 30, for the purpose of investigating self-silencing and

body surveillance related discourses and whether they mediated the link between the internalization of the thin-ideal and disordered eating attitudes in fully sighted women (Morrison & Sheahan, 2009). The extent to which both self-silencing and body surveillance in gender-related discourses were endorsed significantly mediated the link between internalization of the thin-ideal and eating pathology.

The synthesis of these results suggests that internalizing self-silencing disempowers women, forcing them to cope with negative feelings while also impairing their self- and body-esteem. This then puts women at risk of developing disordered eating attitudes due to a more negative self- and body-experience. These findings corroborate the need to further consider disordered eating attitudes within the context of multiple gender-based social constructions, while also considering the role of the media in women living with VI. Women living with VI are speculated to be protected from the same level of sexually objectifying experiences to that of fully sighted women, due to their decreased visual experience of self-objectification processes through the practice of body surveillance. Women living with VI may still, however, be socialised into other similar feminine discourses, which display less of a visual element, such as the practice of self-silencing, however, for a group that already experience loss of independence and agency as a particular stressor, the uptake of this gendered discourse of self-silencing could be potentially damaging.

Conclusions and the Present Research

From the review of the research, it remains unknown whether the visual experience has an effect on the gender related discourses and their relationship with disordered eating attitudes. Although it has been found that internalization of the thin-ideal in women with VI is a significant predictor of disordered eating attitudes, women with VI have significantly lower disordered eating attitudes than sighted controls. A possible explanation for this incoherence may be understood by taking into account the extent to which women with VI

endorse gender-related discourses, specifically, self-silencing and body surveillance. The investigation of these gender-related discourses may be of particular interest, as Morrison and Shaeahan (2009) found self-silencing and body surveillance were indicative of two separate latent variables measuring separate gender related discourses. Self-silencing appears to be distinct from body surveillance by means of the extent to which women view their bodies from an external visual perspective, and thus, the investigation of the visual elements of these discourses may offer increased insight as to their importance in fully-sighted women.

The immense gap in the literature relating to this issue is clear: vision loss and how this affects women with VI and the understanding of their bodies is certainly under-researched. The postulated relations among the variables of gender related discourse and internalization of the thin-ideal in fully sighted women are summarized in Figure 1. However, research has shown the visual experience is related to systematic differences between women who are fully sighted and women with VI. Women with VI report significantly lower levels of body-shape dissatisfaction and disordered eating attitudes (Ashikali & Dittmar, 2010; Baker et al., 1998). Initially, it was assumed that women with VI were protected from developing disordered eating attitudes; however, cases of women with VI diagnosed with an eating disorder have been identified. These cases identify both body dissatisfaction and body image disturbances as contributing factors to the drive for thinness in women with VI (Bemporad et al., 1989; Dunn & Coorey, 1982; Sharp, 1993; Simeunovic-Ostojic & Hansen, 2013; Thomas et al., 2012). The study by Ashikali and Dittmar (2010) also found that although internalization and awareness of the thin-ideal were reported as significantly lower in women with VI, both remained significant predictors in the disordered eating attitudes for these women. This highlights the pervasive nature of the thin-ideal in the media, as, although women with VI have a severely reduced visual exposure to the thin-ideal portrayed through the media, they may still internalize these values by other means. In order

to further understand the factors predicting disordered eating attitudes in women with VI, there will be three main internalized expectations investigated in the current study: 1) attending to the needs of the other in close relationships at the expense of the self (self-silencing), 2) supposing one's own body as an object to be gazed at (and the body surveillance and body shame as ramifications of this), and 3) appraisal of the unrealistic beauty ideal of thinness portrayed by the media (internalization of the thin-ideal). The current research will endeavour to increase the understanding of how internalization of prominent societal appearance ideals and subscription to body surveillance and self-silencing as distinct gender discourses predict the eating attitudes of women living with VI. On the basis of the review of the extant literature, the model presented in Figure 2 will be tested which proposes that in women with VI, a negative indirect relationship between subscription to discourses of body surveillance and disordered eating attitudes will occur, mediated by internalization of the thin-ideal and body shame, with body shame and self-silencing having a direct relationship with disordered eating attitudes.

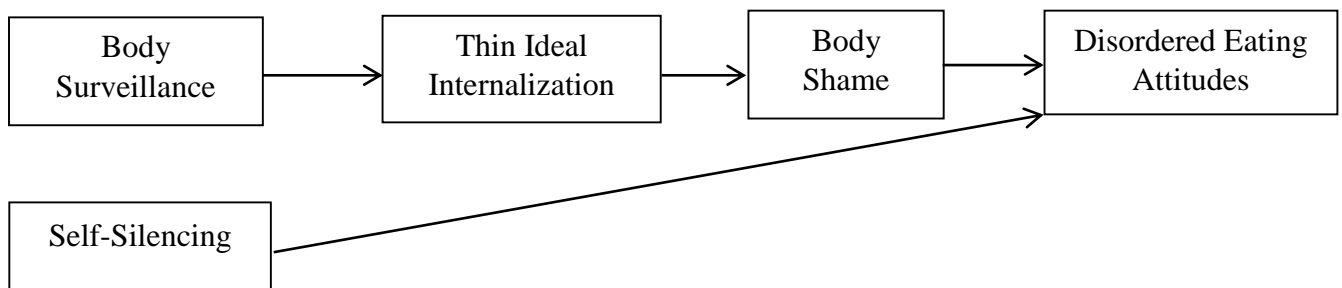


Figure 2. Conceptual model of Disordered Eating Attitudes in Women living with VI

Method

Participants

A sample of 120 females aged between 18 and 59.75 years ($M=35.37$, $SD=10.28$) participated in the online survey. Participants who did not complete the survey ($N=40$) were excluded from the study. The study thus comprised a total of 80 participants.

All participants reported being legally blind. Nine participants reported a visual acuity of No Light Perception (11.3%), 22 participants reported a visual acuity of Light Perception Only (27.5%), 16 reported 3/60 (20%), and 18 participants reported 6/60 (22.5%) as their visual acuity. 49 participants reported having peripheral vision reduced to 20 degrees or less (61.3%). Cause of Vision Impairment was reported as being due to a range of conditions, including, but not limited to, congenital blindness and conditions of the retina, macula, lens, optic nerve and neurological functioning. For a detailed outline of the conditions reported by participants see Appendix A. As well as VI, four participants reported also having a significant hearing loss, or to be hard of hearing (5%).

62 participants identified their ethnicity as White Caucasian (77.5%), four as Hispanic (5%), two identified as African American (2.5%), one as Pacific Islander (1.3%) and five identified their ethnicity as Other (6.3%). 60 participants identified as heterosexual (75%), six identified as Lesbian (7.5%), three identified as Bisexual (3.8%), three identified as Queer (3.8%) and two reported their preference not to answer the question (2.5%). 51 participants (63.8%) reported being currently in a relationship and 29 participants (36.3%) reported not currently being in a relationship.

Measures

Participants in the study completed an online survey (see Appendix B) comprising demographic questions (age, relationship status, height, weight and ethnicity) and a series of questionnaires assessing extent and cause of VI, Body Surveillance, Body Shame, Internalization of the Thin-Ideal, Self-Silencing and Disordered Eating Attitudes.

Demographic Questionnaire. The demographic questionnaire included questions relating to participants' age, ethnicity, sexual preference, relationship status, weight and height to calculate BMI, and eating disorder history. Questions also examined extent of vision impairment, assessed with: "Are you legally blind?", rated as yes or no, "Is your

peripheral field decreased to 20 degrees or less?”, rated as yes or no. and “What is your visual acuity” rated on a 9-point Likert-type scale (1 = No Light Perception, 2 = Light Perception, 3 = 3/60, 4 = 6/60, 5 = 6/36, 6 = 6/24, 7 = 6/18, 8 = 6/12, 9 = 6/6). This method was used as extent of vision loss varies depending on the participants’ individual circumstances. For example, a legally blind person with a visual acuity of 6/60 may have severely reduced visual acuity or peripheral vision, but still have access to some residual vision, whereas those with No Light Perception cannot perceive any visual stimuli at all.

Objectified Body Consciousness Scale. The ‘Surveillance’ and ‘Body Shame’ subscales of the Objectified Body Consciousness Scale (OBC; McKinley & Hyde, 1996) were utilised. These two subscales were used to assess the extent to which feminine discourses related to the body was endorsed by participants.

Body Surveillance. The eight-item Surveillance subscale of the OBC was used to measure the degree to which participants monitor their bodies from an external perspective and extent of preoccupation with how the body looks rather than how the body feels or functions (e.g., “During the day, I think about how I look many times”). Items were rated on a 6-point Likert-type (1 = strongly disagree, 6 = strongly agree). Higher scores are indicative of being more likely to monitor the body and think of it in terms of its appearance. The original subscales yielded Cronbach’s alpha of .89 (McKinley & Hyde, 1996).

Body Shame. The eight item Body Shame subscale of the OBC (McKinley & Hyde, 1996) consists of items that measure the degree of shame felt for falling short of internalized standards of the thin-ideal (e.g., “When I am not the size I think I should be I feel ashamed”). Items were rated on a 6-point Likert-type scale (1 = strongly disagree, 6 = strongly agree). Higher scores indicate greater levels of body shame. The original Body Shame subscale yielded a Cronbach’s alpha of .75 (McKinley & Hyde, 1996).

Sociocultural Attitudes Towards Appearance Questionnaire-3. The eight-item Internalization subscale and six-item Awareness subscale of the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-3; Heinberg, Thompson, & Stroman, 1995) was utilised in the current study to assess the extent to which the participant has internalised prominent societal appearance ideals (e.g., “In today’s society is it not always important to look attractive” and “I wish I looked like a swimsuit model”). Items were rated using a 5-point Likert-type scale (1 = completely disagree to 5 = completely agree). Higher scores are indicative of greater awareness and internalization of societal standards of beauty and the thin-ideal. In the original study, Heinberg et al. (1995) reported a Cronbach’s alpha of .88 for Internalization items and .71 for Awareness items.

Silencing the Self Scale. The Silencing the Self Scale (STSS; Jack, 1991; Jack & Dill, 1992) consists of 31 items designed to examine the extent to which participants silence certain feelings, behaviours and thoughts in relationships. For example, the Silencing the Self (SS) subscale (nine items) examines the extent to which a person silences their own thoughts and feelings in a relational context so as to avoid conflict (e.g., “I do not speak my feelings in an intimate relationship when I know they will cause disagreement”). Items are rated on a 5-point Likert-type scale (1 = strongly disagree to 5 = strongly agree). Higher scores are indicative of greater self-silencing. Jack and Dill (1992) reported alpha coefficients ranging from .78 (undergraduate students) to .90 (attendees at women’s shelters).

Eating Attitudes Test – 26. The Eating Attitudes Test – 26 (EAT – 26; Garner, Olmstead, Bohr, & Garfinkel, 1982) consists of 26 items measuring Disordered Eating Attitudes indicative of dieting, bulimic, and food control behaviour (e.g. “I vomit after I have eaten”). Items are rated on a 6-point Likert-type (1 = never to 6 = always), and can be summed to obtain an overall score in non-clinical samples (Siever, 1994). Cronbach’s alphas

for the EAT-26 have been reported from .79 to .94 across samples of women (Kashubeck-West, Mintz, & Saunders, 2001).

Procedure

After gaining approval from the Navitas Professional Institution (NPI) Human Research Ethics Committee (see Appendix C), participant recruitment began. The majority of recruitment was obtained from online advertisements posted by various private and public vision organisations nation-wide (Vision Australia, Vision2020 Australia, the Albinism Fellowship of Australia, Retina Australia, Australian Blindness forum, Blind Citizens Australia, Blind Sports Australia, Association of Blind Citizens of NSW, Glaucoma Australia, Blind Welfare Association of WA, UNSW School of Optometry and Vision Sciences), a national professional organisation for Orthoptists (Orthoptics Australia), and Australia's Childhood Vision Impairment Register (the VI Family Network).

These organisations approved the advertisement of the current study among the vision impaired community using their respected social media, newsletter and e-mail lists. The advertisements directed interested participants to an online research page on the social networking site, Facebook, where instructions and the link to the online survey were advertised. An option for special arrangements was possible for participants who required extra assistance to participate in the study. These participants were encouraged to contact the researcher to arrange support in the form of braille or large print surveys to be posted for completion. Further accessibility options which were available included screen reader compatibility of JAWS, Windows Narrator and Apple VoiceOver with the Qualtrics survey platform. The invitation e-mail to potential participants can be found in Appendix D, and the details of the introductory page to the survey questionnaire can be found in Appendix E.

Participants were informed that the study was a survey investigating women living with VI and their experiences of body image and eating behaviours. Participants were

required to be between 18 and 50 years of age, female and legally blind to participate. Participants were informed submitting the completed survey was an indication that they consented to participate in the study. Due to the anonymity of the study, participants acknowledged they would not be able to withdraw their answers. The debriefing page contained further information about the study and the contact details of the corresponding researcher and supervisor. All data were collected using the Qualtrics platform and converted to an SPSS Version 22 file for analysis.

Research Design

The current study is exploratory, designed to examine the variables that may be associated with Disordered Eating Attitudes in women living with VI. Specifically, the current study examines how the Internalization of the thin-ideal, subscription to discourses of Western normative femininity (Body Surveillance and Self-Silencing) and affective variables (Body Shame) may be associated for women with VI. The criterion variable is Disordered Eating Attitudes, measured using the EAT-26, (Garner et al., 1982). Predictor variables include the demographic variable of Age, discursive variables related to normative femininity (Body Surveillance and Self-Silencing), Internalization of the thin-ideal, and affective variables indicative of Body Shame.

Results

Preliminary Analysis

A sample size of 80 was obtained, and deemed adequate given the four predictors included in the model as Field (2013) recommends at least ten cases per predictor included in the model. A missing values analysis was conducted using Little's MCAR test which revealed data was missing completely at random, $\chi^2(1,775) = 1036.51, p = 1.00$. Therefore, the Expectation Maximisation (EM) procedure was deemed appropriate to replace missing values in the data. All further analyses were then conducted on the new data file generated by the EM procedure with missing values replaced. Body Mass Index (BMI) was removed as

a predictor in the analysis due to ambiguity surrounding the interpretation of height and weight reported by participants. It was uncertain what measuring scale (e.g., pounds or kilograms or inches or centimetres) was used by participants in self-report, despite instructions to use kilograms and centimetres only.

The six final included variables were tested against general mathematical assumptions of normality. These variables included the demographic variable (age), variables of normative femininity (Body Surveillance and Self-Silencing), emotional affect (Body Shame), and Thin-Ideal Internalization, used to predict tendency toward the criterion variable of Disordered Eating Attitudes. Shapiro-Wilk tests revealed that of these six variables, only four were distributed normally (Table 1). However, the large sample size used in the present study ($N = 80$) means that parametric analyses are robust for deviations from assumptions (Tabachnick & Fidell, 2012). Thus, Pearson correlations and multiple linear regression were employed in analysis of the data. All correlation and regression analyses were conducted using a two-tailed test of significance to control for Type I error rate (Field, 2013).

Table 1

Shapiro-Wilk Tests for Disordered Eating Attitudes, Demographic, Discourse Related Beliefs, Affective and Internalization variables

Variable	<i>Df</i>	<i>Shapiro-Wilk</i>
Eating Attitudes (EAT)	80	.94**
Age	76	.95**
Surveillance	80	.98
Body Shame	80	.99
Self-Silencing	80	.97
Internalization	80	.99

** $p < .01$

Means, standard deviations, ranges and internal consistency for all relevant variables are presented in Table 2. As evident from Table 2, all Cronbach's alphas were acceptable at the .70 level (Field, 2013), with most exceeding or commensurate with those reported for each scale in the literature.

Table 2

Means, Standard Deviations, Ranges and Internal Consistencies for Disordered Eating Attitudes, Demographic, Discourse Related Beliefs, Affective and Internalization variables

Variable	<i>M</i>	<i>SD</i>	<i>Range</i>		<i>A</i>
			<i>Min</i>	<i>Max</i>	
EAT	43.05	16.33	30.00	137.00	.87
Age	35.37	10.28	18.00	59.75	-
Body Surveillance	31.10	8.51	14.00	48.00	.87
Body Shame	26.38	8.65	9.00	48.00	.86
Self-Silencing	85.68	20.09	48.00	138.00	.90
Internalization	40.02	6.91	26.00	55.45	.81

Seven participants (8.8%) reported being diagnosed with an eating disorder in their lifetime. Independent samples *t*-tests revealed no significant difference between the scores of women who were diagnosed with an eating disorder, compared with women who had not been diagnosed with an eating disorder on all predictor and criterion variables, including levels of disordered eating attitudes, $t(72) = -.56, p = .58$ (two tailed), body shame, $t(72) = .55, p = .58$ (two tailed), body surveillance, $t(72) = -.95, p = .34$ (two tailed), thin-ideal internalization, $t(72) = .37, p = .71$ (two tailed), self-silencing, $t(72) = .33, p > .74$ (two tailed) and age, $t(69) = .03, p = .97$ (two tailed). Therefore, all participants were retained in the analysis.

Relationships with Disordered Eating Attitudes

Correlational Analysis. The present study aimed to develop a conceptual model of disordered eating attitudes in women living with VI to explore how the uptake of discourses

of Western normative femininity (body surveillance and self-silencing) were related to the internalization of the thin-ideal, body shame and disordered eating attitudes. Relationships between the criterion variable, disordered eating attitudes, and each predictor were assessed using Pearson product moment correlation co-efficients with a two-tailed significance level of $p < .05$. Strength of correlations was judged using Cohen's conventions of $r = .10$ as weak, $r = .30$ as moderate and $r = .50$ as strong (Field, 2013). Results of these analyses are presented in Table 3.

Table 3

Correlations of Disordered Eating Attitudes with Demographic, Discourse Related Beliefs, and Thin-Ideal Internalization.

Variable	1	2	3	4	5	6
EAT (1)	-					
Age (2)	-.02	-				
Body Surveillance (3)	.46**	-.16	-			
Body Shame (4)	.65***	-.07	.68**	-		
Internalization (5)	.39**	-.11	.52**	.52**	-	
Self-Silencing (6)	.26*	-.11	.09	.46**	.27*	-

* $p < .05$; ** $p < .01$; *** $p < .001$

Age was observed to be non-significantly correlated with the criterion variable ($r = -.02$, $p > .05$) and all predictor variables, suggesting that age is unrelated to women with VI's reported levels of disordered eating attitudes. Therefore, the variable of age was not included in the final model. A weak significant positive correlation was obtained between disordered eating attitudes and levels of self-silencing ($r = .26$, $p < .05$) suggesting that women living with VI who report higher levels of self-silencing also report higher levels of disordered eating attitudes. A moderate significant positive correlation was obtained between disordered

eating attitudes, body surveillance ($r = .46, p < .01$) and thin-ideal internalization ($r = .39, p < .01$). These correlations suggest that women living with VI who report higher levels of body surveillance and internalization of the thin-ideal, also report higher levels of disordered eating attitudes. A strong significant positive correlation was obtained between disordered eating attitudes and levels of body shame ($r = .65, p < .001$), suggesting that women living with VI who report higher levels of body shame, also report higher levels of disordered eating attitudes.

Regression Analyses. In order to determine the predictors of disordered eating attitudes in women with VI, the variables of body surveillance, body shame, thin-ideal internalization and self-silencing were entered into a simultaneous multiple linear regression using disordered eating attitudes as criterion variable. This type of linear regression was deemed most suitable for the present research given its aim of building a model of predictors for the disordered eating attitudes in women with VI and its sample size, which was insufficient for stepwise multiple regression given the number of predictors used (Field, 2013).

Examination of the Pearson product moment correlation co-efficients among predictor variables indicated no problems with multicollinearity, since no correlation exceeded $r = .80$ (Field, 2013), and variance inflation factors (VIF) ranged from 1.44 to 2.66, with none exceeding 10 (Field, 2013). Predictor variables were entered into the model in order from strongest predictor to weakest predictor (Field, 2013). Results of the regression analysis are presented in Table 4, and indicated that body shame ($B = 1.2, \beta = .69, p < .001$) significantly predicted disordered eating attitudes. Thin-ideal internalization ($B = .17, \beta = .07, p = .50$), Body surveillance ($B = -.01, \beta = -.003, p = .98$) and self-silencing ($B = -.04, \beta = -.05, p = .61$) did not significantly predict disordered eating attitudes. The overall model explained 43.2%

of variance in the disordered eating attitudes of women living with VI ($R^2 = .432$, $R^2_{\text{ADJ}} = .402$), $F(4, 75) = 14.27$, $p < .001$.

Table 4

Regression of Disordered Eating Attitudes on Gender Related Beliefs and Thin-Ideal Internalization

Variable	VIF	B	SE B	β	<i>t</i>
Constant	-	8.12	9.89	-	.82
Shame	2.68	1.21	.27	.64	4.51***
Body Surveillance	2.27	-.01	.25	-.003	-.02
Internalization	1.50	.17	.25	.07	.68
Self-Silencing	1.45	-.04	.09	-.05	-.51

*** $p < .001$

One influential case was identified, with a standardised residual value of 4.21 in this model. Although Cook's distance for this case was .07, suggesting that the case exerted little influence on the model, the covariance ratio of the case was .27, less than 1 minus three times the centred leverage of the case (leverage value = .06). Following Belsey, Kuh and Welsch (1980), these diagnostics suggest that removal of this case would improve the precision of the model's parameters. Consequently, the case was removed and Pearson product moment correlation co-efficients between disordered eating attitudes and each predictor variable recalculated. The simultaneous multiple linear regression was re-run using the predictor variables entered in order from strongest predictor to weakest predictor, which was the same order as the initial simultaneous regression analysis. Results of this final regression analysis are presented in Table 5. SPSS output for both regression analyses and the second correlation analysis is available in Appendix F.

Table 5

Regression of Disordered Eating Attitudes on Gender Related Beliefs and Thin-Ideal Internalization with case 69 removed

Variable	VIF	B	SE B	β	<i>t</i>
Constant	-	9.11	8.66	-	1.05
Body Shame	2.67	1.20	.24	.69	5.10***
Body Surveillance	2.27	.01	.22	.01	.06
Internalization	1.50	.16	.22	.07	.73
Self-Silencing	1.45	-.06	.08	-.08	-.83

*** $p < .001$

No influential cases were identified in the new model; the value of the Durbin-Watson statistic was 2.04, indicating no serial correlation among residuals (Field, 2013).

Examination of the P-P plot of regression standardised residuals demonstrated a normal distribution of residuals and mean of residuals as 0, and examination of the scattergram of regression standardised predicted values against regression studentised residuals demonstrated a random scatter of points, indicating homoscedasticity (Field, 2013). The results of the final regression analysis indicated that body shame ($B = 1.2, \beta = .69, p < .001$) significantly predicted disordered eating attitudes in women with VI. The final model explained 49.3% of variance in disordered eating attitudes ($R^2 = .493, R^2_{ADJ} = .466$); $F(4, 74) = 18.03, p < .001$. Overall, body shame contributed directly to a greater reported level of disordered eating attitudes in adult women living with VI.

In order to further investigate the pathways by which disordered eating attitudes develop in women with VI, additional regression analyses were conducted. These analyses revealed that when controlling for the effect of thin-ideal internalization, both self-silencing, $B = .16, \beta = .37, p < .001$, and body surveillance, $B = .59, \beta = .58, p < .001$ significantly

affected body shame. These results suggest both that in women living with VI, internalization of the thin ideal is mediated by self-silencing and body surveillance in predicting body shame and disordered eating attitudes, and that self-silencing and body surveillance are distinct constructs, measuring two separate discourses. Further regression analyses demonstrated that in women living with VI, internalization of the thin ideal significantly predicted both self-silencing, $B = .78$, $\beta = .27$, $p = .017$ and body surveillance, $B = .64$, $\beta = .52$, $p < .001$. The results of these analyses are supplied in Appendix G. Figure 3 presents the final conceptual model.

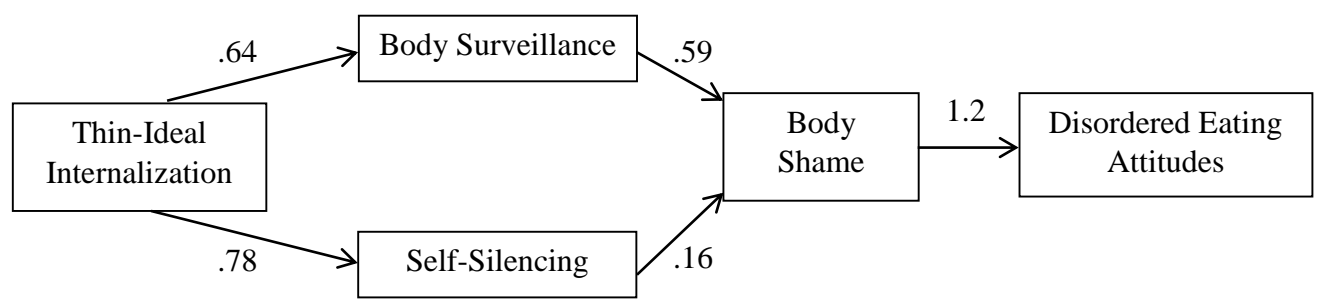


Figure 3. Final Conceptual Model of Disordered Eating Attitudes in Women with VI

Discussion

To comprehend the factors predicting the disordered eating attitudes of women living with VI, the current study aimed to explore the relationships of three main internalized expectations. These internalized expectations included; appraisal of the unrealistic beauty ideal of thinness portrayed by social influences such as the media (internalization of the thin-ideal), attending to the needs of the other in close relationships at the expense of the self (self-silencing) and supposing one's own body as an object to be gazed at (and the body surveillance and body shame as ramifications of this). The study is exploratory in design and the first amongst the literature to test a path model for predicting the disordered eating attitudes of women living with VI. Internalization of the thin-ideal was observed to be indirectly predictive of disordered eating attitudes in women living with VI, mediated by

subscription to body surveillance and self-silencing as separate unrelated discourses, with body shame as the only remaining direct predictor for the disordered eating attitudes in the sample. The findings suggest that the greater a woman with VI internalizes prominent societal appearance standards of beauty and the related epitome of thinness, was associated with an increase in her subscription to an objectified, monitored view of her body and uptake of self-silencing as two separate latent variables. Endorsement of these gender-related discourses was subsequently related to the feeling that there is something inherently wrong with the body (i.e. body shame) and that the body must then be controlled (i.e. disordered eating attitudes).

On the basis of the review of the extant literature, women with VI reported significantly lower levels of disordered eating attitudes compared with fully-sighted controls (Ashikali & Dittmar, 2010; Baker et al., 1998). It was postulated that a negative indirect relationship between subscription to discourses of body surveillance and disordered eating attitudes would be revealed, mediated by internalization of the thin-ideal and body shame, with body shame and self-silencing as direct predictors of disordered eating attitudes. The current study, however, did not render results to the anticipated effect. Visual elements of the subscription to objectification processes did not offer an understanding for the systematic differences reported between fully-sighted women and women with VI. Results are consistent with notions of Socio-cultural Theory (Keel et al., 2013; Stice, 2002) which posit the core importance of social influences of unrealistic standards of beauty in promoting weight concern, body dissatisfaction and disordered eating attitudes in fully-sighted women. Initially, it was believed women living with VI were protected from developing an eating disorder, due to a reduced visual exposure of the thin-ideal in the media. The current results support the findings of Ashikali and Dittmar (2010) which found that internalization of the thin-ideal in women with VI was a significant predictor of disordered eating attitudes in these

women. The current findings suggest that women with VI are still susceptible to internalizing prominent societal appearance standards of beauty portrayed through social influences, even with a reduced exposure to visual components of the thin-ideal in the media.

Internalization of the Thin-Ideal

The mechanisms by which women with VI internalize the thin-ideal are not yet fully understood. Contemporary western society is saturated with visual images of beauty and its related ideal of thinness. However, not all messages are in visual form. Studies show that women living with VI are susceptible to internalizing messages about the thin-ideal, as these messages are pervasive and powerfully encoded in language. It may be through the use of language that these women internalize the unrealistic appearance standards of being thin in today's society. The importance of the verbal component to social pressures of internalizing the thin-ideal in congenitally blind women is revealed in case studies describing the aetiology of eating disorders in women living with VI (Thomas et al., 2012; Touyz et al., 1988). The studies emphasised women living with VI had an increased reliance on suppositions made about their physical appearance from others. These processes were suggested as imperative to increased body-related cognitive distortions in women with VI diagnosed with an eating disorder. The investigation of the aetiology of restrictive eating behaviours in women with VI is essential to understanding how the thin-ideal is internalized in women who do not have access to visual images of thinness in the media. This was predominantly apparent in the case of a 19 year old congenitally blind woman with AN (Touyz et al., 1988). The case highlights the pronounced importance of language and reliance on comments made about her physical appearance and pressure from her mother as a significant cause of her restrictive eating. The indirect relationship revealed in the current study between internalization of the thin-ideal and disordered eating attitudes in women living with VI supports the notion that legally blind women are susceptible to internalizing harmful messages related to socio-

cultural standards of beauty (Ashikali & Dittmar, 2010). This in turn, was associated with increased subscription to the gender-related discourses of body surveillance and self-silencing, subsequently associated with an increased negative affect towards the body in the form of body shame, related directly to an increase in disordered eating attitudes.

Objectified Body Consciousness

The present findings also corroborate notions of Objectification Theory (Fredrickson & Roberts, 1997). The current study highlights repercussions of objectification processes, the sexual objectification of women, and the harming relation of these to women's mental health issues such as disordered eating behaviours. Extreme vision loss did not protect women with VI against the uptake of the chronic monitoring of the body. The current findings highlight the robust nature of objectification processes in today's society, as even with extreme vision loss, women living with VI still surveyed their bodies and subscribed to the discourse of body surveillance. This was revealed to be associated with higher levels of both body shame and subsequent disordered eating attitudes. The sequence of the path model for the objectification processes in women with VI was equivalent to that found in fully-sighted women (Tiggemann & Williams, 2012). The trajectory of the path model utilising variables of both Socio-Cultural Theory in conjunction with Objectification Theory for predicting the disordered eating attitudes of women with VI is also conceptually reflective to that of the model used for predicting the disordered eating attitudes in fully-sighted women (See Figure 1). Although women with VI may not externally monitor their bodies using the same visual mechanism that fully sighted women use, the current findings reveal women with VI still monitor their bodies. This may be through the use of other senses, or with what remaining vision they may still have access to (Kaplan-Myrth, 2000). This substantiates, even with a reduced visual representation of their bodies, women with VI are susceptible to body-shape dissatisfaction and related body image disturbances as contributing factors to

disordered eating attitudes found in the literature (Bemporad et al., 1989; Dunn & Coorey, 1982; Thomas et al, 2012; Sharp, 1993; Simeunovic-Ostojic & Hansen, 2013). As such, the current research suggests vision loss and blindness do not inhibit women from being aware of their bodies nor subscribing to objectification processes.

Self-Silencing

Moreover, the present findings reveal women living with VI who engage in higher levels of internalization of the thin-ideal, also report an associated increase in self-silencing and body surveillance as separate and unrelated discourses. This in turn is associated with higher levels of body shame and subsequent disordered eating attitudes. The findings are consistent with past research that has linked the uptake of self-silencing and body surveillance as separate and distinct gender-related discourses in predicting the disordered eating attitudes in fully-sighted women (Morrison & Sheahan, 2009). Morrison and Sheahan (2009) propose these discourses are distinct based on visual components in the uptake of body surveillance. However, as the current study reveals that women with VI subscribe to the discourse of body surveillance even with a reduced visual representation of their bodies, further investigation into understanding the mechanisms underlying these gender related discourses which propel them as two separate latent constructs must be conducted. Women with vision loss or complete blindness have a compromised ability to exercise agency and be independent. For women with VI, where agency and independence have been highlighted as particular stressors, the uptake of the discourse of self-silencing may be particularly damaging. The adoption of the discourses of self-silencing and body surveillance in women with VI may be unrelated, not only due to visual elements of body surveillance but also constituents of agency. The case study literature identifies the aetiology of restrictive eating behaviour in women living with VI as caused by a severe struggle with issues of autonomy and independence (Thomas et al., 2012, Touyz et al., 1988). Compromised ability to exercise

agency may create a vulnerability to the uptake of the discourse of self-silencing, where attending to the needs of the other in relationships emanates before the needs of the self. This has been associated with lowered body-esteem and subsequent disordered eating in fully sighted women (Geller et al., 2000). Indeed, it is suggested in the review of the case study literature that women with VI diagnosed with an eating disorder express their negative affect through their bodies in the form of defective eating habits. Contributing factors of negative affect include: enhanced life-stressors such as developmental problems (McFarlane, 1989), susceptibility to misperceiving body size and weight (Vandereycken, 1986; Thomas et al., 2012) and maladaptive stress-coping mechanisms (Fernández-Aranda et al., 2006). Further, the case by Thomas et al. (2012) identified restrictive eating behaviours caused by fears of maturing due to craving of motherly affection and increased self-esteem from the ability in controlling and restricting food intake. It may be that these psycho-social problems associated with vision loss are essential to heightening the development of disordered eating attitudes in women with VI. This could be through the uptake of the gender based discourse of self-silencing, as well as the uptake of body surveillance practices as a separate unrelated discourse. A reduced visual experience did not protect against the endorsement of gender-related discourses of objectification processes (body surveillance) or discourses of normative Western femininity (self-silencing). Although women with VI report significantly lower levels of internalization of the thin ideal and disordered eating attitudes compared with fully-sighted controls (Ashikali & Dittmar, 2010), this incoherence was not revealed to be associated with the extent to which women with VI endorsed gender-related discourses of self-silencing or body surveillance.

Body Shame

Specifically, the findings among this sample of women with VI suggest social influences and internalization of the thin-ideal may function as a core factor that create

vulnerability toward the endorsement of discourse for women, as signified by self-silencing and body surveillance. This in turn may increase vulnerability towards feeling the body as unacceptable or transgressed (i.e. body shame) which must then be controlled through disordered eating habits. The current findings highlight the importance of internalization of the thin-ideal as a core vulnerability factor, and also compels the importance of body shame as a direct predictor to be included in the path model of disordered eating attitudes in women with VI. Body shame as a direct predictor in the disordered eating attitudes of women with VI serves to highlight the fundamental importance of body shame in predicting body related issues for women. The current path model is conceptually reflective to the path model used for predicting the disordered eating attitudes in fully-sighted women (Calogero & Pina, 2011; Chen & Russo, 2010; Hurt et al., 2007; Moradi et al., 2005; Tiggemann & Kuring, 2004; Tiggemann & Williams, 2012). The current study specifies that women who feel increased levels of negative affect towards their bodies will also have an associated increase in maladaptive eating behaviours, such as restrictive eating, binge eating or excessive dieting behaviour. In addressing issues of body shame, further isolation of the ways in which disordered eating attitudes manifest in women can be prevented. Exploring the factors predicting body shame in women with VI has led to conjecture that internalization of the thin-ideal may be more pervasive and inherent in contemporary western society than first thought, as it appears to transcend visual barriers. The current findings provide evidence to suggest language as a fundamental medium by which society influences the internalisation of the thin-ideal and manifests as body shame in body-related mental health issues for women.

Limitations and direction for future research

Of the 30 participants for whom cause of VI was reported, 20 (66.67%) or two thirds of participants reported onset of vision loss later in life. These participants may have internalized the thin-ideal portrayed in the visual media before onset of vision loss. The

current study was exploratory, and aimed to develop a path model for predicting the disordered eating attitudes of women living with VI. Due to sampling restrictions and employed design, the current study did not control for onset of vision loss. Previous research has indicated a linear trend of onset of vision loss and levels of body dissatisfaction, disordered eating attitudes and internalization of the thin-ideal (Ashikali & Dittmar, 2010; Baker et al., 1998). It has previously been found that congenitally blind women report significant lower levels of disordered eating attitudes and internalization of the thin-ideal compared with women blinded later in life. Following this linear pattern, women who were blinded later in life reported significantly lower levels of disordered eating attitudes and internalization of the thin-ideal compared with fully sighted controls. As two-thirds of the participants reported being blinded later in life, this may have contributed to the factors predicting the disordered eating attitudes of women with VI which were revealed in the current study. This limitation offers insightful avenues for future research which should endeavour to investigate the factors predicting the disordered eating attitudes of congenitally blind women as compared to women with onset of vision loss later in life. It may be that these women internalize the thin-ideal in different ways, depending on time of vision loss. Controlling for onset of vision loss may increase our understanding as to the importance of visual images in the media and their relationship with the disordered eating attitudes of women with VI. Additional suggestions for future research may include investigating the disordered eating attitudes in a sample of women with Usher Syndrome. Usher Syndrome is the leading cause of deaf-blindness and results in a combination of both severe VI and hearing loss. The investigation of a sample of women with Usher Syndrome may offer further insight into the importance of language in conjunction with visual images in the internalization of the thin-ideal. Due to a severe and diverse range of sensory impairments,

women with Usher Syndrome have marked difficulties in both communication of language and accessibility of visually related stimuli portrayed in the media.

The current study recruited women who met the classification of legal blindness. Therefore, as mentioned previously, onset and extent of vision loss were not controlled. The stereotypical assumption that those with VI live in a world of blackness is mostly incorrect. The vast majority of those classified as legally blind do have access to some form of residual vision. This may be in the form of light perception only, reduced visual field, or severely diminished fine detail. Of the total sample included in the current study, nine of the participants reported a visual acuity of No Light Perception (11.3%). Women with no light perception are indeed living in a world of total blindness which is essentially completely void of all perception of light or form. It is currently unclear as to how the extent of vision loss (or visual acuity) may be important in determining an external visual perspective of the body. Sampling restrictions led to seventy one (90.7%) participants reporting access to some form of remaining vision. To a certain extent, this may influence the degree to which a woman internalizes the thin-ideal and monitors her body. It is recommended that the factors predicting the disordered eating attitudes in a sample of women who are completely blind with no light perception be conducted to further comprehend this issue.

Finally, women with VI may reveal differences in their ability to compare their own bodies with other women. This could play an important role for how women with VI experience their bodies and effects subsequent body-related mental health issues. Previous studies have investigated social comparison as a variable similar to body surveillance in the prediction of disordered eating attitudes in fully-sighted women (Fitzsimmons-Craft, 2011). It is suggested here that future research also include variables of social comparison in this area of enquiry.

Conclusions

The current study acknowledges the diversity of experience faced by those living with severe vision loss or blindness, and supports greater inclusion of the sensory impaired amid body-related issues in the literature. The final path model predicting the disordered eating attitudes in women with VI revealed that although these women may have a reduced visual exposure to the thin-ideal portrayed in the visual media in conjunction with a reduced visual experience of their bodies, increased internalization of the thin-ideal and body surveillance practices were indirectly related with increased disordered eating attitudes in the sample. These findings indicate that the internalization of social messages about women's bodies and the associated importance of thinness to one's self-understanding may be an inherent and pervasive influence in our society, transcending the barriers of visual experience. The current study offers support for Socio-Cultural Theories of body image disturbances (Keel & Forney, 2013) and notions of Objectification Theory (Fredrickson & Roberts, 1997) as contributing factors to mental health issues related to body image in women with VI. Comparable to fully-sighted women, thin-ideal internalization in women with VI through speculated powerful social influences (such as language), may contribute to chronic monitoring and awareness of the body (Calogero et al., 2005). This body surveillance is then related to an increase in both body shame and subsequent maladaptive eating behaviours (Dakanalis et al., 2015; Tiggemann & Williams, 2012). Additionally, women with VI who have internalized the thin-ideal are also at an increased risk for subscribing to core expectations about women through prioritising others before themselves in relationships, signified by the practice of self-silencing. This trajectory highlights the importance of including gender related discourses in predicting women's experiences of their bodies and mental health concerns (Geller et al., 2000; Morrison & Sheahan, 2009; Piran & Cormier, 2005). In conclusion, the results reinforce internalization of the thin-ideal as a core vulnerability factor predicting the

disordered eating attitudes of women with VI, and the necessity of including body surveillance and self-silencing in a model predicting the disordered eating attitudes of these women. Reflective to that of fully sighted women, the current study emphasizes the importance of body shame as a direct predictor in the mediational pathway which predicts disordered eating attitudes in women living with VI.

References

- Ashikali, E.M., & Dittmar, H. (2010). Body image and restrained eating in blind and sighted women: A preliminary study. *Body Image*, 7, 172–175.
- Baker, D., Sivyer, R., & Towell, T. (1998). Body image dissatisfaction and eating attitudes in visually impaired women. *International journal of eating disorders*, 24(3), 319-322
- Bemporad, J. R., Hoffman, D., & Herzog, D. B. (1989). Anorexia nervosa in the congenitally blind: Theoretical considerations. *Journal of the American Academy of Psychoanalysis*. 17, 89-101.
- Berger, J. (2008). *Ways of seeing*. London: Penguin UK. p. 47.
- Calogero, R. M., Davis, W. N., & Thompson, J. K. (2005). The role of self-objectification in the experience of women with eating disorders. *Sex Roles*, 52, 43–50.
- Calogero, R. M., & Pina, A. (2011). Body Guilt Preliminary Evidence for a Further Subjective Experience of Self-Objectification. *Psychology of Women Quarterly*, 35(3), 428-440.
- Chen, F., & Russo, N. F. (2010). Measurement Invariance and the Role of Body Consciousness in Depressive Symptoms. *Psychology of Women Quarterly*, 34(3), 405-417.
- Dakanalis, A., Carrà, G., Calogero, R., Zanetti, M. A., Volpato, C., Riva, G., ... & Cipresso, P. (2015). The Social Appearance Anxiety Scale in Italian Adolescent Populations: Construct Validation and Group Discrimination in Community and Clinical Eating Disorders Samples. *Child Psychiatry & Human Development*, 1-18.
- Dittmar, H., & Howard, S. (2004). Thin-ideal internalization and social comparison tendency as moderators of media models' impact on women's body-focused anxiety. *Journal of Social and Clinical Psychology*, 23(6), 768-791.

Dunn, T. L., & Coorey, P. R. (1982). Anorexia nervosa, visual disturbance, and Laurence-Moon-Biedl syndrome. *The Lancet*, 319(8282), 1184.

Fernández-Aranda, F., Crespo, J. Mth., Jiménez-Murcia, S., Krug, I., & Vallejo-Ruiloba, J. (2006). Blindness and bulimia nervosa: A description of a case report and its treatment. *International Journal of Eating Disorders*, 39(3), 263-265.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. (4th ed.). Sage.

Fitzsimmons-Craft, E. (2011). Social psychological theories of disordered eating in college women: Review and integration. *Clinical Psychology Review*, 31(7), 1224-1237.

Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, 21, 173-206.

Garner, D.M., Olmsted, M.P., Bohr, Y., & Garfinkel, P.E. (1982). The Eating Attitudes Test: Psychometric Features and Correlates. *Psychological Medicine*. 12, 871-878.

Gatens, M. (1991). A critique of the sex/gender distinction. In S. Gunew (Ed.), *A reader in feminist knowledge* (pp. 139-157). London: Routledge.

Geller, J., Cockell, S. J., Hewitt, P. L., Goldner, E. M., & Flett, G. L. (2000). Inhibited expression of negative emotions and interpersonal orientation in anorexia nervosa. *International Journal of Eating Disorders*, 28, 8-19.

Grosz, E. A. (1994). *Volatile bodies: Toward a corporeal feminism*. Indiana University Press.

Hausenblas, H. A., Campbell, A., Menzel, J. E., Doughty, J., Levine, M., & Thompson, J. K. (2013). Media effects of experimental presentation of the ideal physique on eating disorder symptoms: A meta-analysis of laboratory studies. *Clinical Psychology Review*, 33(1), 168-181.

- Heinberg, L. J., Thompson, J. K., & Stormer, S. (1995). Development and validation of the Sociocultural Attitudes Towards Appearance Questionnaire. *International Journal of Eating Disorders*, 17, 81–89.
- Hurt, M., Nelson, M., Turner, J., Haines, A., Ramsey, D., Erchull, L., & Liss, M. (2007). Feminism: What is it good for? Feminine norms and objectification as the link between feminist identity and clinically relevant outcomes. *Sex Roles*, 57(5), 355-363.
- Jack, D. C. (1991). *Silencing the self: Women and Depression*. New York: William Morrow Paperbacks.
- Jack, D.C., & Dill, D. (1992). The Silencing the Self Scale: Schemas of Intimacy Associated With Depression in Women. *Psychology of Women Quarterly* 16, 97-106.
- Kashubeck-West, S., Mintz, L. B., & Saunders, K. J. (2001). Assessment of eating disorders in women. *The Counseling Psychologist*, 29, 662-694.
- Kaplan-Myrth, N. (2000). Alice without a looking glass: Blind people and body image. *Anthropology & Medicine*, 7(3), 277-299.
- Keel, P. K., & Forney, K. J. (2013). Psychosocial risk factors for eating disorders. *International Journal Of Eating Disorders*, 46(5), 433-439.
- Levine, M. P., & Murnen, S. K. (2009). ‘Everybody knows that mass media are/are not [pick one] a cause of eating disorders’: A critical review of evidence for a causal link between media, negative body image, and disordered eating in females. *Journal of Social and Clinical Psychology*, 28(1), 9-42.
- McFarlane, A.C. (1989). Blindness and anorexia nervosa. *Canadian Journal of Psychiatry*, 34, 431–433.
- McKinley, N.M., & Hyde, J.S. (1996). The Objectified Body Consciousness Scale: Development and validation. *Psychology of Women Quarterly* 20, 181-215

- Moradi, B., Dirks, D., & Matteson, A. V. (2005). Roles of sexual objectification experiences and internalization of standards of beauty in eating disorder symptomatology: A test and extension of Objectification Theory. *Journal of Counseling Psychology*, 52, 420–428.
- Moradi, B., & Huang, Y-P. (2008). Objectification theory and psychology of women: A decade of advances and future directions. *Psychology of Women Quarterly*, 32, 377–398.
- Morrison, T. G., & Sheahan, E. E. (2009). Gender-related discourses as mediators in the association between internalization of the thin-body ideal and indicants of body dissatisfaction and disordered eating. *Psychology of Women Quarterly*, 33(4), 374–383.
- Piran, N., & Cormier, H. (2005). The social construction of women and disordered eating patterns. *Journal of Counseling Psychology*, 52, 549–558.
- Ross, M., & Wade, T. D. (2003). Shape and weight concern and self-esteem as mediators of externalized self-perception, dietary restraint, and uncontrolled eating. *European Eating Disorders Review*, 12, 129–136.
- Sharp, C.W. (1993). Anorexia nervosa and depression in a woman blind since the age of nine months. *Canadian Journal of Psychiatry*, 8, 469–471.
- Siever, M. D. (1994). Sexual orientation and gender as factors in socioculturally acquired vulnerability to body dissatisfaction and eating disorders. *Journal of Consulting and Clinical Psychology*, 62(2), 252–260.
- Simeunovic-Ostojic, M., & Hansen, A. (2013). Sociocultural factors in the development of Bulimia Nervosa in a blind woman: A case report. *International Journal of Eating Disorders*, 46, 284–288.
- Smolak, L., Levine, M. P., & Thompson, J. K. (2001). The use of the Sociocultural Attitudes

- Toward Appearance Questionnaire (SATAQ) with middle school boys and girls. *International Journal of Eating Disorders*, 29, 216-223.
- Stice, E. (2002). Risk and maintenance factors for eating pathology: A meta-analytic review. *Psychological Bulletin*, 128(5), 825.
- Stice, E., & Argas, W.S. (1998). Predicting onset and cessation bulimic behaviours during adolescence: A longitudinal grouping analysis. *Behavior Therapy*, 29, 257–276.
- Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics* (8th ed.). Boston, MA: Allyn & Bacon.
- Thomas, B. (Producer), & Schones, A. (Director). (2015, October 1). *Double Vision Blog Fight Song* [Video Podcast]. Retrieved from <http://doublevisionblog.com/2015/10/01/1447/>.
- Thomas, J. J., Weigel, T.J., Lawton, R.K., Levendusky, P.G., & Becker, A.E. (2012). Cognitive-Behavioral treatment of body image disturbance in a congenitally blind patient with Anorexia Nervosa. *American Journal of Psychiatry*, 169(1), 16-20.
- Thompson, J. K., & Stice, E. (2001). Thin-ideal internalization: Mounting evidence for a new risk factor for body-image disturbance and eating pathology. *Current Directions in Psychological Science*, 10(5), 181-183.
- Thompson, J. K., Van den Berg, P., Roehrig, M., Guarda, A. S., & Heinberg, L. J. (2004). The Sociocultural Attitudes Toward Appearance Scale-3 (SATAQ-3): Development and validation. *International Journal of Eating Disorders*, 35, 293-304.
- Tiggemann, M., & Kuring, J. K. (2004). The role of body objectification in disordered eating and depressed mood. *The British Journal of Clinical Psychology*, 43, 299– 311.

- Tiggemann, M., & Williams, E. (2012). The role of self-objectification in disordered eating, depressed mood, and sexual functioning among women a comprehensive test of objectification theory. *Psychology of Women Quarterly*, 36(1), 66-75.
- Touyz, S. W., O'Sullivan, B. T., Gertler, R., & Beumont, P. J. (1988). Anorexia nervosa in a woman totally blind since birth. *The British Journal of Psychiatry*, 153(2), 248-250.
- Vandereycken, W. (1986). Anorexia nervosa and visual impairment. *Comprehensive Psychiatry*, 27(6), 545-548.
- Watson, L. B., Ancis, J. R., White, D. N., & Nazari, N. (2013). Racial identity buffers African American women from body image problems and disordered eating. *Psychology of Women Quarterly*.
- Yager, J., Hatton, C. A., & Ma, L. (1986). Anorexia nervosa in a woman totally blind since the age of two. *The British Journal of Psychiatry*, 149(4), 506-509.

Appendix A
List of Causes of VI

Table A1

Conditions reported as cause of VI in Participants.

Area of the Eye	Name of Condition
Conditions of the Retina	Retinitis Pigmentosa (RP)
	Retinal Dystrophy
	Retinopathy of Prematurity
	Diabetic Retinopathy
	Retinal Detachment
	Familial Exudative Vitreoretinopathy (FEVR)
	Cone Rod Dystrophy (CRD)
Conditions of the Macular	Stargardt Disease
	Macular Degeneration
Conditions of the Lens	Cataracts
Conditions of the Optic Nerve	Optic Nerve Damage
	Bilateral Optic Disc Drusen (ODD)
	Glaucoma
	Leber Hereditary Optic Neuropathy (LHON).
Conditions of Neurological Functioning	Nystagmus
	Haemorrhagic Stroke
	Pseudotumor Cerebri
	Cortical Vision Impairment (CVI)
Conditions effecting Multiple Areas	Albinism

Appendix B**Survey****Section One:****1. What is your age in:**

_____ years _____ months

2. Do you identify as female: YES NO**3. Do you have a vision impairment?** YES NOIf you answered YES to Question 3 above, please answer the following questions**4. What is your visual acuity?**

No Light Perception	Light Perception	3/60	6/60	6/36	6/24	6/18	6/12	6/6
1	2	3	4	5	6	7	8	9

5. Is your visual field or peripheral vision reduced to 20 degrees or less?

YES NO

6. Do you have a significant hearing loss, or are hard of hearing? YES NO

Section Two:

The next set of 16 questions look at your overall awareness and feelings of you body and appearance. Please read each statement carefully and select from the number scale below the extent to which you agree or disagree with the corresponding statement.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

1. I rarely think about how I look.	
2. I think it is more important that my clothes are comfortable than whether they look good on me.	
3. I think more about how my body feels than how it looks.	
4. I rarely compare how I look with how other people look.	
5. During the day, I think about how I look many times.	
6. I often worry about whether the clothes I am wearing make me look good.	
7. I rarely worry about how I look to other people.	
8. I am more concerned with what my body can do than how it looks.	
9. When I can't control my weight, I feel like something must be wrong with me.	
10. I feel ashamed of myself when I haven't made the effort to look my best.	
11. I feel like I must be a bad person when I don't look as good as I could.	
12. I would be ashamed for people to know how much I really weigh.	
13. I never worry that something is wrong with me when I am not exercising as much as I should.	
14. When I am not exercising enough, I question whether or not I am a good enough person.	
15. Even when I cannot control my weight, I feel like I'm an OK person.	
16. When I am not the size I think I should be I feel ashamed.	

The Objectified Body Consciousness Scale (OBC; McKinley & Hyde, 1996; 16 items);

Please read each of the following items and write down that best reflects your agreement with the statement.

1	2	3	4	5
Completely Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree

1.	Women who appear in TV shows and movies project the type of appearance that I see as my goal.	
2.	I believe that clothes look better on thin models.	
3.	Music videos that show thin women make me wish that I were thin.	
4.	I do not wish to look like the models in the magazines.	
5.	I tend to compare my body to people in magazines and on the TV.	
6.	In our society, fat people are not regarded as unattractive.	
7.	Photographs of thin women make me wish I was thin.	
8.	Attractiveness is very important if you want to get ahead in our culture.	
9.	It's important for people to work hard on their figures/ physiques if they want to succeed in today's culture.	
10.	Most people do not believe that the thinner you are, the better you look.	
11.	People think that the thinner you are, the better you look in clothes.	
12.	In today's society, it's not always important to look attractive.	
13.	I wish I looked like a swimsuit model.	
14.	I often read magazines like <i>Cosmopolitan</i> , <i>Vogue</i> and <i>Glamour</i> and compare my appearance to the models.	

The Sociocultural Attitudes Towards Appearance Questionnaire-3 (SATAQ-3; Thompson, Van Den berg, Roehrig, Guarda & Heinberg, 2004; 14 items);

Below is a series of statements that relate to your experiences of eating and your body. Please use the six-point response scale given to indicate your response to each statement.
(38/47/39)

RATING SCALE

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

	STATEMENTS	RATING
1	Am terrified about being overweight.	
2	Avoid eating when I am hungry.	
3	Find myself preoccupied with food	
4	Have gone on eating binges where I feel that I may not be able to stop.	
5	Cut my food into small pieces.	
6	Aware of the calorie content of the food I eat.	
7	Particularly avoid food with a high carbohydrate content (i.e. bread, rice, potatoes, etc.).	
8	Feel that others would prefer if I ate more.	
9	Vomit after I have eaten.	
10	Feel extremely guilty after eating.	
11	Am preoccupied with a desire to be thinner.	
12	Think about burning up calories when I exercise.	
13	Other people think I am too thin.	
14	Am preoccupied with the thought of having fat on my body.	
15	Take longer than others to eat my meals.	
16	Avoid foods with sugar in them.	
17	Eat diet foods.	

RATING SCALE

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

	STATEMENTS	RATING
18	Feel that food controls my life.	
19	Display self-control around food.	
20	Feel that others pressure me to eat.	
21	Give too much time and thought to food.	
22	Feel uncomfortable after eating sweets.	
23	Engage in dieting behavior.	
24	Like my stomach to be empty.	
25	Have the impulse to vomit after meals.	
26	Enjoy trying new rich foods.	

Eating Attitudes Test-26 (Garner, Olmstead, Bohr & Garfinkel, 1982).

Please select the number that best describes how you feel about each of the statements listed below. If you are not currently in an intimate relationship, please indicate how you felt and acted in your previous intimate relationships.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

1.	I think it is best to put myself first because no one else will look out for me.	
2.	I don't speak my feelings in an intimate relationship when I know they will cause disagreement.	
3.	Caring means putting the other person's needs in front of my own.	
4.	Considering my needs to be as important as those of the people I love is selfish.	
5.	I find it is harder to be myself when I am in a close relationship than when I am on my own.	
6.	I tend to judge myself by how I think other people see me.	
7.	I feel dissatisfied with myself because I should be able to do all the things people are supposed to be able to do these days.	
8.	When my partner's needs and feelings conflict with my own, I always state mine clearly.	
9.	In a close relationship, my responsibility is to make the other person happy.	
10.	Caring means choosing to do what the other person wants, even when I want to do something different.	
11.	In order to feel good about myself, I need to feel independent and self-sufficient.	
12.	One of the worst things I can do is to be selfish.	
13.	I feel I have to act in a certain way to please my partner.	
14.	Instead of risking confrontations in close relationships, I would rather not rock the boat.	

15.	I speak my feelings with my partner, even when it leads to problems or disagreements.	
16.	Often I look happy enough on the outside, but inwardly I feel angry and rebellious.	
17.	In order for my partner to love me, I cannot reveal certain things about myself to him/her.	
18.	When my partner's needs or opinions conflict with mine, rather than asserting my own point of view I usually end up agreeing with him/her.	
19.	When I am in a close relationship I lose my sense of who I am.	
20.	When it looks as though certain of my needs can't be met in a relationship, I usually realize that they weren't very important anyway.	
21.	My partner loves and appreciates me for who I am.	
22.	Doing things just for myself is selfish.	
23.	When I make decisions, other people's thoughts and opinions influence me more than my own thoughts and opinions.	
24.	I rarely express my anger at those close to me.	
25.	I feel that my partner does not know my real self.	
26.	I think it's better to keep my feelings to myself when they do conflict with my partner's.	
27.	I often feel responsible for other people's feelings.	
28.	I find it hard to know what I think and feel because I spend a lot of time thinking about how other people are feeling.	
29.	In a close relationship I don't usually care what we do, as long as the other person is happy.	
30.	I try to bury my feelings when I think they will cause trouble in my close relationship(s).	
31.	I never seem to measure up to the standards I set for myself.	

The Silencing the Self Scale (Jack, D.C. 1991)

Section Three:

1. **Your height in centimetres:** _____
2. **Your weight in kilograms:** _____
3. **What is your sexual orientation?**

Bisexual

Heterosexual

Lesbian

Queer

Prefer not to answer

4. **What is your ethnicity?**

White/Caucasian

African American

Hispanic

Asian

Native American

Pacific Islander

Other

5. **What is the Cause of your Vision Impairment?**

6. **Have you ever been diagnosed with an eating disorder?**

YES

NO

If you answered YES to question 10 above, please answer the following questions.

5a. **If so, when?** _____

5b. **Which eating disorder were you diagnosed? Please indicate as many as apply.**

Anorexia nervosa _____

Bulimia nervosa _____

Binge Eating Disorder _____

Night Eating Disorder _____

Female Athlete Triad _____

Appendix C

Navitas Professional HREC Notice of Approval



keep learning



keep learning

**NOTICE OF OUTCOME OF NAVITAS PROFESSIONAL HUMAN RESEARCH AND ETHICS COMMITTEE
ETHICAL REVIEW OF RESEARCH APPLICATION**

Research Applicant's Name: Alexandra PAGE
Research Applicant's Email: Alexandra.page@my.acap.edu.au

Supervisor's Name: Dr Fiona Ann Papps
Supervisor's Email: fionaann.papps@acap.edu.au

APPROVAL

☒ The ACAP HREC has completed its ethical review and approves your proposed human research to proceed as proposed.

Please provide a progress report by **5 October 2015** to hrec@navitas.com

Your ACAP approval number is **212050515**

Your ACAP approval expires **5 May 2015**

WITHHELD

☐ The ACAP HREC has completed its ethical review and is withholding your approval until you submit a revised application and explanatory letter addressed to the:

A. Chair ☐

B. Committee ☐

Please see the next page for the requirements for resubmission.

EXEMPT

☐ The ACAP HREC has completed its ethical review and exempted your proposed research from ethical review.

You are not required to liaise further with the ACAP HREC concerning your planned research.

REJECTED

☐ The ACAP HREC has rejected your Application on ethical grounds.

NPI HREC Secretary Signature *Clara* Date: 5 May 2015

Date of feedback from the NPI HREC: 5 May 2015

Signature:

Carolyn Noble, PhD.

Chair of the NPI HREC

Professor Carolyn Noble

Appendix D
Recruitment E-Mail

Hi There,

You are invited to participate in an online survey that looks at perceptions about gender roles, and how these perceptions impact eating attitudes for 18-50 year old woman with a vision impairment. You will be asked a series of questions in relation to your beliefs about gender roles and your attitudes and feelings towards eating. The survey will take approximately 20-30 minutes to complete, and your contribution will assist in building our understanding of how gender concepts and the media impact vision impaired women's eating attitudes. If you would like to participate in this survey, then please click on the following link to enter the survey site (insert link to survey website). If you require extra assistance in participating in the study, please do not hesitate to contact the researcher so they may arrange for the required support. JAWS, Microsoft Narrator and Apple VoiceOver screen readers are all compatible with the survey website. Braille or Large Print surveys are available to be posted to you for completion if you cannot complete the online version.

If you would like further information regarding this survey or the study, please contact the primary researcher, Alexandra Page, at alexandra.page@my.acap.edu.au. This research is being completed by Alexandra Page toward the completion of the degree in Bachelor of Psychological Science (Honours). It is supervised by Dr. Fiona-Ann Papps at the Australian College of Applied Psychology. This research has received full approval from the Human Research Ethics Committee at the Australian College of Applied Psychology, approval number 212050515.

With Thanks,

Ms. Alexandra Page alexandra.page@my.acap.edu.au and Dr. Fiona Ann Papps

FionaAnn.Papps@acap.edu.au

Appendix E

Introductory Page to the Survey

You are invited to participate in an online study that investigates the relationship between media influence, perceptions about gender roles and eating attitudes in legally blind women. This research is being conducted by Alexandra Page toward the degree of Bachelor of Psychological Sciences (Honours) at the Australian College of Applied Psychology. It is being supervised by Dr. Fiona-Ann Papps of the School of Psychological Sciences at the Australian College of Applied Psychology. You must be 18-50 years of age to participate in this study. JAWS screen reader is compatible with the survey website. If your screen reader is non compatible with the survey, Please feel free to email the researcher letting them know what screen reader you are using so they can investigate the issue further. Braille or Large Print surveys may be posted to you for completion if you cannot complete the online version. If you choose to participate, you will be asked a number of demographic questions related to age, height, weight and extent of sensory impairment. You will also be asked to complete a series of questions in relation to your personal beliefs about gender roles, media influence and eating attitudes. In total, the survey will take approximately 20-30 minutes to complete.

You are free to skip any question that you do not want to answer. Participation in the study will cost you nothing and you will not be paid for your participation. There are no risks associated with participating in the study. Although you won't benefit personally from taking this survey, your answers will assist in building our understanding of how women with a vision impairment conceptualise traditional gender roles and how these perceptions impact on eating attitudes.

You cannot be identified from your answers to the survey. The IP addresses collected by Qualtrics are deleted once data collection is complete and the data downloaded, so there is no way your information can be traced to you. We will keep the information you provide

confidential. However, the Navitas Professional Human Research Ethics Committee (a committee that reviews and approves research studies) may inspect and copy records pertaining to this research. If we write a report about this study we will do so in such a way that you cannot be identified. Submitting your responses indicates that you have agreed to participate in the study. Once you have submitted your answers, they cannot be withdrawn.

If you have any questions about the research, or would like a copy of the final results, please contact Alexandra Page (222249@my.acap.edu.au), or Dr Fiona Ann Papps (FionaAnn.Papps@acap.edu.au). The results will be available after October 31, 2015. If you have any concerns or complaints about the research, please contact the Secretary of the NPI Human Research Ethics Committee:

NPI HREC Secretary,

Australian College of Applied Psychology,

Locked Bag 11, Strawberry Hills NSW 2012.

Email: hrecsecretary@acap.edu.au

This research has been approved by the NPI Human Research Ethics Committee, Approval Number 212050515. Thank you for considering participation in this study.

Appendix F

SPSS Output for both Regression Analysis and Correlational Analysis with Case 69 Removed

Correlations

		EAT_REV	AGENUMERIC	SURVEILLANCE	SHAME	INTERNALIZATI ON	SELFSILENCING
EAT_REV	Pearson Correlation	1	-.093	.506**	.696**	.416**	.253*
	Sig. (2-tailed)		.427	.000	.000	.000	.024
	N	79	75	79	79	79	79
AGENUMERIC	Pearson Correlation	-.093	1	-.164	-.076	-.115	-.120
	Sig. (2-tailed)	.427		.160	.515	.328	.307
	N	75	75	75	75	75	75
SURVEILLANCE	Pearson Correlation	.506**	-.164	1	.678**	.518**	.095
	Sig. (2-tailed)	.000	.160		.000	.000	.406
	N	79	75	79	79	79	79
SHAME	Pearson Correlation	.696**	-.076	.678**	1	.522**	.457**
	Sig. (2-tailed)	.000	.515	.000		.000	.000
	N	79	75	79	79	79	79
INTERNALIZATION	Pearson Correlation	.416**	-.115	.518**	.522**	1	.268*
	Sig. (2-tailed)	.000	.328	.000	.000		.017
	N	79	75	79	79	79	79
SELFSILENCING	Pearson Correlation	.253*	-.120	.095	.457**	.268*	1
	Sig. (2-tailed)	.024	.307	.406	.000	.017	
	N	79	75	79	79	79	79

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

SPSS Output for Initial Regression Analysis**Variables Entered/Removed^a**

Model	Variables Entered	Variables Removed	Method
1	SELSILENCING, SURVEILLANCE, INTERNALIZATION, SHAME ^b	.	Enter

a. Dependent Variable: EAT_REV

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.657 ^a	.432	.402	12.63292	.432	14.270	4	75	.000	1.959

a. Predictors: (Constant), SELSILENCING, SURVEILLANCE, INTERNALIZATION, SHAME

b. Dependent Variable: EAT_REV

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9109.645	4	2277.411	14.270	.000 ^b
	Residual	11969.304	75	159.591		
	Total	21078.949	79			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	8.118	9.867		.823	.413					
	SHAME	1.212	.269	.642	4.508	.000	.653	.462	.392	.374	2.675
	SURVEILLANCE	-.006	.251	-.003	-.022	.983	.464	-.003	-.002	.441	2.267
	INTERNALIZATIO N	.171	.252	.072	.678	.500	.392	.078	.059	.665	1.504
	SELSILENCING	-.043	.085	-.053	-.508	.613	.260	-.059	-.044	.691	1.448

Casewise Diagnostics^a

Case Number	Std. Residual	EAT_REV	Predicted Value	Residual
69	4.213	98.75	45.5224	53.22824

a. Dependent Variable: EAT_REV

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	21.1271	68.6949	43.0526	10.73834	80
Std. Predicted Value	-2.042	2.388	.000	1.000	80
Standard Error of Predicted Value	1.602	4.736	3.067	.757	80
Adjusted Predicted Value	19.6737	68.9721	43.0516	10.78024	80
Residual	-21.21320	53.22824	.00000	12.30895	80
Std. Residual	-1.679	4.213	.000	.974	80
Stud. Residual	-1.713	4.251	.000	1.001	80
Deleted Residual	-22.07041	54.17964	.00098	13.00132	80
Stud. Deleted Residual	-1.736	4.847	.010	1.041	80
Mahal. Distance	.283	10.117	3.950	2.382	80
Cook's Distance	.000	.149	.011	.020	80
Centered Leverage Value	.004	.128	.050	.030	80

a. Dependent Variable: EAT_REV

SPSS Output for Regression Analysis with Case 69 Removed**Variables Entered/Removed^a**

Model	Variables Entered	Variables Removed	Method
1	SELSILENCING, SURVEILLANCE, INTERNALIZATION, SHAME ^b	.	Enter

a. Dependent Variable: EAT_REV

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.702 ^a	.493	.466	11.08043	.493	18.025	4	74	.000	2.044

a. Predictors: (Constant), SELSILENCING, SURVEILLANCE, INTERNALIZATION, SHAME

Model Summary^b

ANOVA^a

THI

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	9109.645	4	2277.411	14.270	.000 ^b
Residual	11969.304	75	159.591		
Total	21078.949	79			

a. Dependent Variable: EAT_REV

b. Predictors: (Constant), SELFSILENCING, SURVEILLANCE, INTERNALIZATION, SHAME

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	8.118	9.867		.823	.413					
	SHAME	1.212	.269	.642	4.508	.000	.653	.462	.392	.374	2.675
	SURVEILLANCE	-.006	.251	-.003	-.022	.983	.464	-.003	-.002	.441	2.267
	INTERNALIZATIO N	.171	.252	.072	.678	.500	.392	.078	.059	.665	1.504
	SELFSILENCING	-.043	.085	-.053	-.508	.613	.260	-.059	-.044	.691	1.448

a. Dependent Variable: EAT_REV

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	20.9492	67.4825	42.3476	10.65303	79
Std. Predicted Value	-2.009	2.359	.000	1.000	79
Standard Error of Predicted Value	1.413	4.162	2.711	.654	79
Adjusted Predicted Value	19.4811	67.5618	42.3106	10.68268	79
Residual	-20.08030	30.97782	.00000	10.79258	79
Std. Residual	-1.812	2.796	.000	.974	79
Stud. Residual	-1.849	2.863	.002	1.007	79

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.791 ^a	.626	.611	5.42591	.626	41.831	3	75	.000	2.229

a. Predictors: (Constant), SELFSILENCING, SURVEILLANCE, INTERNALIZATION

b. Dependent Variable: SHAME

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3694.604	3	1231.535	41.831	.000 ^b
	Residual	2208.039	75	29.441		
	Total	5902.643	78			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-11.726	4.017		-2.919	.005					
	SURVEILLANCE	.588	.084	.580	7.011	.000	.678	.629	.495	.730	1.370
	INTERNALIZATION	.154	.107	.123	1.438	.154	.522	.164	.102	.684	1.463
	SELFSILENCING	.159	.032	.369	5.028	.000	.457	.502	.355	.925	1.081

a. Dependent Variable: SHAME

a. Dependent Variable: SHAME

b. Predictors: (Constant), SELFSILENCING, SURVEILLANCE, INTERNALIZATION

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	INTERNALIZATION ^b	.	Enter

a. Dependent Variable: SELFSILENCING

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.268 ^a	.072	.060	19.55890	.072	5.978	1	77	.017	1.828

a. Predictors: (Constant), INTERNALIZATION

b. Dependent Variable: SELFSILENCING

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
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1	Regression	2286.705	1	2286.705	5.978	.017 ^b
	Residual	29456.395	77	382.551		
	Total	31743.100	78			

a. Dependent Variable: SELFSILENCING

b. Predictors: (Constant), INTERNALIZATION

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	54.375	12.930		4.205	.000					
INTERNALIZATION	.779	.318	.268	2.445	.017	.268	.268	.268	1.000	1.000

a. Dependent Variable: SELFSILENCING

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	INTERNALIZATION ^b	.	Enter

a. Dependent Variable: SURVEILLANCE

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	

1	.518 ^a	.268	.258	7.37793	.268	28.184	1	77	.000	1.980
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a. Predictors: (Constant), INTERNALIZATION

b. Dependent Variable: SURVEILLANCE

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1534.191	1	1534.191	28.184	.000 ^b
	Residual	4191.408	77	54.434		
	Total	5725.599	78			

a. Dependent Variable: SURVEILLANCE

b. Predictors: (Constant), INTERNALIZATION

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	5.597	4.877		1.148	.255					
	INTERNALIZATION	.638	.120	.518	5.309	.000	.518	.518	.518	1.000	1.000

a. Dependent Variable: SURVEILLANCE

Appendix G**Additional Regression Analyses for Path Values**

Table G1

Regression of Body Shame on Surveillance, Self-Silencing and Thin-Ideal Internalization

Variable	VIF	B	SE B	β	<i>t</i>
Constant	-	-11.73	4.02	-	-2.92**
Surveillance	1.37	.59	.08	.58	7.01***
Internalization	1.46	.15	.11	.12	1.44
Self-Silencing	1.08	.16	.03	.37	5.03***

** $p < .01$, *** $p < .001$

Table G2

Regression of Self-Silencing on Thin-Ideal Internalization

Variable	VIF	B	SE B	B	<i>T</i>
Constant	-	54.38	12.93	-	4.21***
Internalization	1.00	.78	.32	.27	2.45*

* $p < .05$, *** $p < .001$

Table G3

Regression of Body Surveillance on Thin-Ideal Internalization

Variable	VIF	B	SE B	B	<i>T</i>
Constant	-	5.60	4.88	-	1.15
Internalization	1.00	.64	.12	.52	5.31***

*** $p < .001$