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Self-esteem and Body Image in Females:  
The Mediating Role of Self-Compassion and Appearance Contingent Self-Worth

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the Association of Comprehensive Energy Psychology and also became a Gold Coast Business Events Ambassador for Gold Coast Tourism. In 2015 Peta received the Global Weight Management Congress Industry Professional Award of Excellence, and was named the Gold Coast Women in Business - Woman for Change Winner. In 2016 she was awarded the greatest contribution to the field of Energy Psychology by the Association of Comprehensive Energy Psychology.

Gabrielle Crighton completed her Graduate Diploma of Psychological Science from Bond University in 2015. She is currently working at Lifeline as a telephone crisis support counsellor and plans to undertake a Masters degree in Clinical Psychology.

Brett Carter attained his Bachelor of Psychological Science degree at Bond University in Australia. He is currently pursuing postgraduate research in Health Psychology and physiology, with a particular interest in curbing the trajectory of obesity prevalence rates. Brett is also an elite level swimming coach and former professional triathlete.

Aileen Pidgeon is an Assistant Professor of Clinical Psychology and a board registered clinical psychologist with over 20 years clinical experience. She has had extensive training and exposure to contemplative-related work including trainings in Mindfulness Self Compassion, Mindfulness-Based Stress Reduction (MBSR), Mindfulness Based Cognitive Therapy (MBCT) and attending retreats. She has also led trainings, workshops and retreats in mindfulness. Dr Pidgeon is particularly interested in empirically investigating mindfulness-based programs to cultivate resilience and well-being with people across the life span, clinicians and university students and academics. She is currently developing the Mindfulness

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Please note none of this article or any of the data has been presented elsewhere (eg conferences).

## Self-esteem and Body Image in Females:

## The Mediating Role of Self-Compassion and Appearance Contingent Self-Worth

## Abstract

Body dissatisfaction is a major source of suffering among women of all ages. One factor that has the potential to mitigate body dissatisfaction, as well as promote a positive body image and psychological wellbeing, is self-compassion. This study explored sources of positive and negative body image by investigating the relationship between self-esteem, self-compassion and appearance contingent self-worth in conceptualising body image avoidance behaviours. The multiple mediation model assessed the responses of 222 female participants from the general community. Self-compassion and appearance contingent self-worth were both found to partially mediate the relationships between self-esteem and body image avoidance behaviours. The findings are discussed in light of clinical interventions and directions for future research in the body image field.

*Keywords:* self-compassion, self-esteem, self-worth, body image, body dissatisfaction

### Self-esteem and Body Image in Females:

#### The Mediating Role of Self-Compassion and Appearance Contingent Self-Worth

The vast majority of research on body image is largely pathology driven, emphasising the concept of negative body image in the absence of considering positive body image (Bjorck, Clinton, Sohlberg & Norring, 2007; Levine & Piran, 2004; McGee, Hewitt, Sherry, Parkin & Flett, 2005; Nicoli & Liberatore, 2011). The literature surrounding body image is grounded in the assumption that a positive body image is simply the opposite or is defined by low levels of a negative body image and its correlates such as eating disorder symptomology and pressure for thinness (Avalos, Tylka, & Wood-Barcalow, 2005). However, Tylka (2011) argues that positive body image is distinct from negative body image. In response to the overemphasis of negative body image imparted in the literature, there has been a recent movement to shift focus towards understanding and promoting positive body image (Frisen & Holmqvist, 2010; Tylka, 2011; Wood-Barcalow, Tylka, & Augustus-Horvath, 2010). Neff (2003) has been a pioneer in the positive image field by introducing a new adaptive construct, self-compassion. The construct has been found to be associated with a positive conceptualisation of body image and psychological wellbeing. Given that a negative body image undermines mental health, contributing to depression and various eating disorders (Campbell & Hausenblas, 2009; Darby, Hay, Mond, Rodgers, & Owen, 2006; Stice & Shaw, 2002; Wiederman & Pryor, 2000), it is crucial to explore sources of negative body image whilst considering sources that can increase positive body image. Therefore, the current study examined self-compassion and appearance contingent self-worth (ACSW) in relation to body image.

#### **Body Dissatisfaction**

Body dissatisfaction is a major source of suffering among women of all ages (Albertson, Neff, & Dill-Shackelford, 2014). Body dissatisfaction refers to dysfunctional,

negative thoughts and feelings pertaining to one's weight and shape (Cash & Szymanski, 1995). Body dissatisfaction prevalence among women in Western cultures is significant (Rodin, Silberstein, & Striegel-Moore, 1984). Research indicates it may be responsible for an array of detrimental outcomes, including indicative psychological and behavioural consequences such as poor self-esteem, depression, eating disorders and obesity (Campbell & Hausenblas, 2009; Darby et al., 2006; Stice & Shaw, 2002; Wiederman & Pryor, 2000).

### **Self-esteem**

Self-esteem is a global evaluation of one's self-worth (Rosenburg, 1965), and its relationship with body image is well documented (see Clay, Vignoles & Dittmar, 2005, for a review). Self-esteem has been associated with being dissatisfied with one's physical appearance such that the more dissatisfied a woman is with her body and/or shape, the lower her self-esteem. By contrast, women with high self-esteem tend to evaluate their bodies positively (e.g., Connors & Casey, 2006; Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006; Swami, Airs, Chouhan, Leon, & Towell, 2009; Tiggemann, 2005). Additionally, high self-esteem is associated with a host of psychological benefits (Crocker & Park, 2004) including high levels of positive affect, positive adjustment, and being a protective factor in the face of adversity (Kling, Hyde, Showers, & Buswell, 1999). Conversely, low self-esteem is linked to a host of negative psychological outcomes, such as lack of motivation, depression, and suicidal ideation (see Harter, 1999, for a review). While there is a consensus that high self-esteem has many psychological benefits, research has indicated high self-esteem is also strongly related to narcissism, self-absorption, and a lack of concern for others (Baumeister, Campbell, Krueger & Vohs, 2003). Likewise, high self-esteem can lead to distortions in self-knowledge, prejudice, violence and aggression towards others (Seligman, 1996). In light of such maladaptive drawbacks to self-esteem, researchers have tried to

introduce an alternative conceptualisation of a healthy attitude and relationship to oneself (Neff, 2003).

### **Self-Compassion**

Neff (2003) has defined self-compassion as self-kindness, common humanity, and mindfulness. She presents the notion of being open to one's own suffering, not avoiding or disconnecting from it, and generating the desire to alleviate this suffering and to heal oneself with kindness. Self-compassion extends to offering non-judgmental understanding to one's own pain, inadequacies, and failures, so that an experience is seen as part of the larger human experience. Self-compassion therefore offers a useful alternative to the more problematic construct of self-esteem, as it may include many of the psychological benefits that have been associated with self-esteem, but with fewer of its drawbacks (see Barnard and Curry, 2011 for a review). Associated positive psychological benefits include: happiness, emotional intelligence, optimism, wisdom, curiosity, and personal initiative (Heffernan, Griffin, McNulty, & Fitzpatrick, 2010; Hollis-Walker & Colosimo, 2011; Neff et al., 2007). In contrast self compassion is negatively associated with rumination, perfectionism, and fear of failure (Neff, 2003; Neff et al., 2005).

As an emotional regulatory strategy that teaches individuals how to accept themselves, irrespective of their imperfections, self-compassion has clear potential for mitigating the suffering associated with body dissatisfaction for a number of reasons. Being kind to oneself rather than being harshly judgmental directly counters the very core of body dissatisfaction, the tendency to criticize rather than accept one's body as it is. Similarly, the sense of common humanity inherent in self-compassion should help women consider their physical appearance from a broad, inclusive perspective that mitigates body dissatisfaction. The element of mindfulness that is central to self-compassion should also be a mitigating factor by helping women relate to their painful thoughts and emotions in a balanced way that

avoids fixating on or over identifying with disliked body characteristics (Albertson, et al., 2014).

In addition to buffering the negative effects of body dissatisfaction and shame, self-compassion may also enhance women's ability to appreciate their bodies (Ferreira, Pinto-Gouveia, & Duarte 2013), thereby fostering bodily acceptance and respect, irrespective of imperfections (Avalos et al., 2005). Because self-compassion is associated with adaptive states such as optimism, life satisfaction and gratitude (Breen, Kashdan, Lenser, & Fincham, 2010; Neff 2003; Neff et al., 2008; Neff et al., 2007; Shapira & Mongrain 2010), one way it may improve body image is by offering women an alternative way of valuing themselves. Women living in Western cultures are taught that physical beauty is one of their most important features (Albertson et al., 2014). In fact, women's self-esteem is largely dependent on meeting societal standards of ideal beauty (Harter, 1999). If women do not meet these standards, their sense of self-worth may suffer. Like self-esteem, self-compassion can be a significant source of positive self-regard. While self-esteem is contingent on success in valued domains such as appearance or social approval (Crocker & Wolfe, 2001), self-compassion involves treating oneself kindly in times of adversity. In fact, Neff and Vonk (2009) found that self-compassion is associated with lower levels of social comparison than global self-esteem and is less contingent on perceived appearance.

Wasyliw, MacKinnon, and MacLellan (2012) explored the relationship between self-esteem, self-compassion and body image in adolescent females. Females who were self-compassionate reported lower body preoccupation and weight concerns, and higher levels of body appreciation. Regression analysis indicated self-compassion played a unique role in predicting body image related concerns, one that was not related to self-esteem. Irrespective of whether women had high or low self-esteem, if they were compassionate they were less likely to report body image related concerns. Wasyliw et al. concluded compassionate

women are accepting of themselves, even when they evaluate their bodies as inferior to another, and are less judgmental when their self-esteem is low as a consequence of a negative body evaluation. It is suggested the construct of self-compassion better captures body image related concerns than self-esteem, and is not redundant with self-esteem. Because women of all ages can be vulnerable to persistent cognitive, affective, and behavioural symptoms triggered by body dissatisfaction (Grogan, 2010; Grippo & Hill, 2008; Lewis & Cachelin, 2001; Tiggemann, 2004; Tiggemann & Lynch, 2001), the current study aimed to explore the mediating role of self-compassion in the relationship between self-esteem and body image avoidance behaviours across the lifespan.

### **Appearance Contingent Self-Worth**

In general, physical appearance is a domain that is considered to be particularly important to a female's sense of self-worth and relational value (Baumeister & Leary, 1995; Harter, 1999; Langlois & Stephen, 1977; Rothblum, Miller, & Garbutt, 1998). Women who tie their self-worth to physical appearance may be more likely to internalise unrealistic standards imposed by Western societies. Furthermore, women with appearance contingent self-worth (ACSW) may be more likely to attempt to achieve unattainable standards of beauty, which may foster a preoccupation with their appearance that is manifested through elevated body surveillance and body shame (John & Ebbeck, 2008; Overstreet & Quinn, 2012). Body surveillance and body shame have been associated with negative outcomes such as diminished performance on demanding tasks (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998), body dissatisfaction (Smolak & Murnen, 2008), and disordered eating (Fitzsimmons-Craft, Bardone-Cone, & Kelly, 2011). Recent studies conducted on women in the United States have implicated ACSW as contributing to the development of negative body image (e.g., Chang, Perera, & Kupfermann, 2013; Overstreet et al., 2012; Sanchez & Crocker, 2005; Sanchez & Kwang, 2007), and demonstrated body weight, particularly for

women, is considered an integral aspect of physical appearance (Fan, Liu, Wu, & Dai, 2004; Puhl & Boland, 2001; Swami, Airs, Chouhan, Leon, & Towell, 2009).

Menon and Pant (2015) explored the relationship between contingencies of self-worth and body image in a student sample of British and Indian females. Correlational analyses revealed, as expected, ACSW was one of the most salient predictors of negative body image. The present study attempted to account for a large gap in the literature pertaining to body image by utilising a diverse community sample of females across the adult lifespan. Given that negative body image undermines mental health, contributing to the development of depression and various eating disorders (Campbell et al., 2009; Darby, et al., 2006; Stice et al., 2002; Wiederman et al., 2000), it is crucial to explore sources of negative body image, not just positive body image, when exploring the relationship between self-esteem and body image. The current study addressed the non-specificity involved in the measurement of self-esteem in relation to body image by exploring ACSW for a more accurate understanding regarding the relationship between the two constructs. Central to the contingencies of self-worth model is the notion that one will invest effort in obtaining positive results only in areas that are considered relevant for self-evaluation, such as grooming, dieting, and exercising (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). Additionally, women with eating disorders derive their self-worth largely from their physical appearance (e.g., Geller et al., 1998). Therefore, investigation of the processes underlying the association between self-worth and body image related concerns is crucial, not only because ACSW is associated with body dissatisfaction, but also because it is a risk factor for the development of eating pathology and eating disorders. It is evident that ACSW is associated with body image related concerns and self-esteem; however, its mediating role for this relationship is yet to be established. Based on the above findings, it was suggested in the present study that ACSW would mediate the relationship between self-esteem and body image avoidance behaviours in the current study.

### **Assessing Body Image**

Given the multifaceted nature of body image, several measures are available to assess the phenomena of interest. One approach to measuring how individuals evaluate and perceive their body is by measuring body image related disturbance. Rosen, Srebnik, Saltzberg, and Wendt (1991) developed the Body Image Avoidance Questionnaire (BIAQ), which focuses on behavioural tendencies that are associated with perceptual-cognitive body image disturbances. These behaviours usually involve avoiding situations that provoke concern about physical appearance, such as social outings where the person believes his or her body will be scrutinized, wearing baggy clothing, avoiding physical intimacy, and eating less. Other habits such as frequent weighing or inspection in the mirror are also typical. Assessing avoidance behaviours when exploring body image is imperative, as it is well known that patients with eating disorders who distort or devalue their appearance learn to reduce appearance anxiety by avoiding certain triggering situations (Leitenberg & Rosen, 1988).

### **The Present Study**

The aim of the study was to examine the relationship between self-esteem and body image in women and the role of self-compassion and ACSW as a mediator in this relationship. Based on previous literature, self-compassion and ACSW are correlates of self-esteem and body image related constructs (Wasylikiw, MacKinnon, & MacLellan, 2012). Correspondingly it was believed individuals who engaged in body image avoidance behaviours would report higher investment in appearance and lower levels of self-esteem, and individuals who indicated higher self-compassion would report higher levels of self-esteem. The central focus of the study was two-fold. Firstly, to establish the degree to which self-compassion mediated the relationship between self-esteem and body image avoidance behaviours as a determinant of whether the construct may act as a protective factor against the serious cognitive, affective, and behavioural symptoms triggered by body dissatisfaction.

To this end it was hypothesized self-compassion would mediate the relationship between self-esteem and body image avoidance behaviours. The second goal of the study sought to examine the degree to which ACSW mediated the link between self-esteem and body image avoidance behaviours to determine whether the construct may act as a risk factor to body image related concerns. It was proposed that ACSW would mediate the relationship between self-esteem and body image avoidance behaviours. Although men are vulnerable to body image related concerns, the focus of this study was limited to women because of the overwhelming evidence that women are socialised to base their self-worth on their appearance more than men are (see Clay et al., 2005, for a review). To extend the literature, the current study explored these relationships in a female community sample across the lifespan.

## Method

### Participants

Prior to commencing research, ethical approval was obtained from The Bond University Human Research Ethics Committee (BUHREC). All participants read the explanatory statement before indicating informed consent, which was gained electronically. Contact details for a telephone counselling service were made available for participants who may have experienced distress during the study. The survey package took approximately 20-30 minutes to complete. All survey responses were anonymous so all data was deidentified immediately. Data storage was the responsibility of the principal supervisor.

The participants were 222 females from the general community who volunteered to participate in the study after requests for participation were distributed through various social media sites including Facebook. The advertisements for the research study clearly outlined that participants needed to be able to access a computer to do the survey online, needed to be

able to read/speak English as a first language and were aged between 18 and 75 ( $M_{age} = 29.82$ ,  $sd = 12.91$ ). Eligible participants had to be female, and volunteering without incentive for participation. The sample was well educated with participants' highest level of education identified as postgraduate (18.9%), undergraduate (34.7%), Tafe/trade-school (17.1%), senior school (24.3%) and grade nine or ten (5%). Racial/ethnic composition was Caucasian/White (87.4%), Asian (3.2%), Middle-eastern (1.4%), European (4.1%) and other (4.1%). Marital status included single (34.7%), dating (25.7%), in a de-facto relationship (18.9%), married (17.6%), separated (.9%), divorced (1.8%) and widowed (.5%).

### **Design**

This study was a non-experimental design, which consisted of four independent variables and one dependent variable. The independent variables of the study were self-esteem, self-compassion, and ACSW. The criterion variable for this study was scores on the body image avoidance questionnaire. Pearson product-moment correlations were conducted between all variables. Hierarchical multiple regression and mediation analyses were run in order to test the contribution of self-compassion and ACSW, independent of the influences of social desirability and self-esteem.

### **Materials**

The materials used were presented in an online web-based questionnaire, on the *Psychdata* website, consisting of demographic questions and five self-report scales to assess self-compassion, body image avoidance behaviours, self-esteem, ACSW, and social desirability.

**Self-Compassion Scale-Short Form.** The 12-item self-report Self-Compassion Scale Short Form (SCS- SF) is a reliable equivalent version of the full SCS (Neff, 2003). The questionnaire measures six components of self-compassion (two items each). Items reflect both positive and negative aspects of the three proposed components of self-compassion.

Self-kindness (sample item: “I try to be understanding and patient towards those aspects of my personality I don’t like”) is contrasted to self-judgment (item: “I’m disapproving and judgmental about my own flaws and inadequacies”). Common humanity (item: “I try to see my failings as part of my human condition”) opposes isolation (item: “When I’m feeling down, I tend to feel like most other people are probably happier than I am”) Finally, mindfulness (item: “When something painful happens I try to take a balanced view of situation”) is juxtaposed to over-identified (item: “When I fail at something important to me I become consumed by feelings of inadequacy”). All items are scored on a 5-point Likert scale from 1 “almost never” to 5 “almost always”. A total mean score is calculated by compiling mean subscale scores, with negative subscale items (self-judgment, isolation, and over-identification) being reverse scored. Higher scores are thought to reflect higher self-compassion. Raes et al. (2011) demonstrated the shortened version yielded no substantial loss of total score internal consistency with the full SCS ( $\alpha = .86$ ) and a near perfect correlation of  $r = .98$ . Subscale correlations for the six components were also shown to be excellent ( $r = .89$  to  $r = .98$ ). The current study reliability analysis revealed a high internal consistency of  $\alpha = .83$ .

**Body Image Avoidance Questionnaire.** The Body Image Avoidance Questionnaire (BIAQ) is a 19-item self-report questionnaire designed to assess behavioural tendencies that are associated with perceptual-cognitive body image disturbances (Rosen et al., 1991). The BIAQ includes items related to avoidance of tight fitting clothes (sample item: “I wear baggy clothes”), social outings (item: “I do not go out socially if people I am with are thinner than me”), and physical intimacy (item: “I avoid physical intimacy”). Items are scored on a 6-point Likert scale from 0 “never” to 6 “always”. A total score is calculated with higher scores reflecting a more negative body image, involving high body dissatisfaction, fear of fatness, and low self-worth due to appearance (Rosen et al., 1991). Rosen et al. reported high internal

consistency ( $\alpha = .89$ ) and good test-retest reliability ( $\alpha = .87$ ) over a two-week period. The BIAQ also demonstrated good convergent validity with the Body Shape Questionnaire ( $r = .78$ ). Internal consistency for the present sample revealed a Cronbach's alpha of .82.

**Rosenberg Self Esteem Scale.** The Rosenberg Self-Esteem Scale (RSES) is a widely used 10-item self-report questionnaire that measures global self-esteem (Rosenberg, 1965). The scale includes five positively worded items, for example, "On the whole, I am satisfied with myself", and five negatively worded items, for example, "At times, I think I am no good at all" which are reverse scored. All items are scored on a 4-point Likert scale from 1 "strongly disagree" to 4 "strongly agree". A total score is calculated with higher scores reflecting higher self-esteem. Sinclair et al. (2010) reported high internal consistency for the RSES in an American community sample ( $\alpha = .91$ ), and good convergent and divergent validity. Reliability analysis was performed for the current study on RSES, revealing a high internal consistency with Cronbach's alpha of .89.

**Contingencies of Self-Worth Scale.** The Contingencies of Self-Worth Scale (CSWS) is a 35-item self-report questionnaire that measures seven domains hypothesised to be important internal and external sources of self-esteem (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). All items are scored on a 7-point Likert scale from 1 "strongly disagree" to 7 "strongly agree", and higher scores on all subscales reflect higher relevance of the particular contingency of self-worth. For the purpose of this study, only the subscale Appearance CSW was used. An example item of Appearance being, "When I think I look attractive, I feel good about myself." Crocker et al. (2003) demonstrated concurrent validity as narcissism, measured by the Narcissism Personality Inventory (NPI), was positively correlated with Appearance CSW ( $r = .13, p < .01$ ), and the Big Five Inventory (BFI) domain of neuroticism was also significantly correlated with Appearance CSW ( $r = .27, p < .01$ ). Reliability analysis was performed for the current study on the Appearance CSW subscale,

revealing a high internal consistency of  $\alpha = .73$ .

**Marlowe-Crowne Social Desirability Scale.** The Marlowe-Crowne Social Desirability Scale (MCSDS) was designed to assess the extent of social desirability and to assess if responses were confounded by the participants' tendency to respond in a socially desirable way (Beretvas, Meyers, & Leite, 2002). The current study used the MCSDS Short Form A (Reynolds, 1982) to assess the impact of social desirability. The scale is dichotomously formatted with participants required to answer true or false to items. An example item is, "No matter who I'm talking to, I'm always a good listener". Higher scores reflect higher levels of social desirability, in which case answers should be interpreted with caution. The MCSDS reports satisfactory reliability with Cronbach's alpha reported as  $\alpha = .77$  (Reynolds, 1982). Internal consistency for the MCDS in the current study was adequate ( $\alpha = .61$ ).

## **Procedure**

Participants were recruited using social media and asked to participate in an anonymous web-based questionnaire assessing the effects of self-esteem on body image avoidance behaviours, self-compassion and social media usage. All participants provided electronically obtained informed consent. Demographics information was collected initially before participants completed the SCS-SF, BIAQ, RSES, Appearance CSW subscale, and MCSDS. Participants received prior instructions on how to answer the forced-response questionnaires.

## **Results**

### **Preliminary Analyses**

The data were analysed using SPSS version 22. Pearson product-moment correlations were conducted to assess the degree of relationship among appearance contingent self-worth, self-compassion, self-esteem and body image avoidance behaviours. As evidenced in Table 1, body image avoidance behaviours were negatively correlated with self-esteem and self-compassion and positively correlated with ACSW. This suggests that women who show fewer body image avoidance behaviours are also likely to have a higher self-esteem, be more self-compassionate and not have a high investment in ACSW.

Insert Table 1

### **Self-compassion as a mediator**

It was hypothesised self-compassion would mediate the relationship between self-esteem and body image avoidance behaviours. To test this hypothesis, hierarchical regression analyses were undertaken to test mediation following the four-step recommendation of Baron and Kenny (1986). As seen in Table 2, social desirability was entered at Step 1 to control for socially desirable responses, explaining 3% variance  $F(1, 220) = 5.77, p = .02$ . After self-esteem was entered in Step 2, the total variance explained by the complete model was 25%,  $F(2, 219) = 35.78, p = .001$ , and social desirability was rendered a non-significant predictor. Self-esteem uniquely predicted 22% of the variance,  $F(1, 219) = 64.14, p = .001$ , and was a significant negative predictor of body image avoidance behaviours,  $\beta = -.49, p = .001$ . When controlling for social desirability, as self-esteem increased, body image avoidance behaviours decreased. After self-compassion was entered in Step 3, the whole model explained 28%,  $F(3, 218) = 27.86, p = .001$ . Self-compassion uniquely explained 3% of variance in body image avoidance behaviours, after controlling for social desirability and self-esteem,  $F(1, 218) = 9.303, p = .001$ , however, self-esteem remained a significant negative predictor when adding self-compassion to the model,  $\beta = -.35, p = .001$ . As in Figure 1, the standardised regression coefficient between self-esteem and body image avoidance behaviours decreased.

In Figure 1, the standardised regression coefficient between self-esteem and body image avoidance behaviours decreased when self-compassion scores were added into the model (a shift of  $\beta = .49$  to  $\beta = .35$ ). As recommended by Baron and Kenny (1986), a Sobel test (Sobel, 1982) was used to determine if the indirect pathway was significant. This analysis indicated a significant indirect pathway ( $Z = -2.97, p = .003$ ); however, the slightly diminished association between self-esteem and body image avoidance behaviours indicated only partial mediation. Therefore, self-compassion partially mediated the relationship between self-esteem and body image avoidance behaviours, consistent with the first central hypothesis.

Insert Table 2

Insert Figure 1

### **Appearance ACSW as a mediator**

As seen in Table 3, social desirability was entered at Step 1 to control for socially desirable responses, explaining 3% variance,  $F(1, 220) = 5.77, p = .02$ . After self-esteem was entered in Step 2, the total variance explained by the complete model was 25%,  $F(2, 219) = 35.78, p = .001$ . The addition of self-esteem rendered social desirability a non-significant predictor. Self-esteem uniquely predicted 22% of the variance,  $F(1, 219) = 64.14, p = .001$ , and thus was a significant negative predictor of body image avoidance behaviours,  $\beta = -.49, p = .001$ . When controlling for social desirability, as self-esteem increased, body image avoidance behaviours decreased. After ACSW was entered in Step 3, the whole model explained 29% variance,  $F(3, 218) = 29.67, p = .001$ . ACSW uniquely explained 4% of variance in body image avoidance behaviours, after controlling for social desirability and self-esteem,  $F(1, 218) = 13.4, p = .001$ . Self-esteem remained a significant negative predictor when adding appearance contingent self-worth scores to the regression,  $\beta = -.45, p = .001$ . As evidenced in Figure 2, the standardised regression coefficient between self-esteem and body image avoidance behaviours decreased when ACSW scores were added into the model (a

shift of  $\beta = .49$  to  $\beta = .45$ ). Sobel test analysis indicated a significant indirect pathway,  $Z = 3.65$ ,  $p = .001$ ; however, the slightly diminished association between self-esteem and body image avoidance behaviours indicated only partial mediation. Thus, the second central hypothesis was supported; ACSW partially mediated the relationship between self-esteem and body image avoidance behaviours.

Insert Table 3

Insert Figure 2

### Discussion

The aim of the study was to contribute to the existing literature by gaining a better understanding of the relationship between self-esteem and body image. This entailed the investigation of sources of positive and negative body image as potential mediators in the relationship between self-esteem and body image avoidance behaviours. Current literature supports the role of both self-compassion and ACSW as positive and negative correlates of body image, respectively (Chang et al., 2013; Mosewich et al., 2011; Overstreet et al., 2012; Sanchez & Crocker, 2005; Sanchez & Kwang, 2007). However, previous research has not yet explored either of these constructs for their role as mediators for the relationship between self-esteem and body image avoidance behaviours. The findings of this study support self-compassion and ACSW as correlates of self-esteem and body image avoidance behaviours, as well as mediators for the relationship between self-esteem and body image avoidance behaviours. In relation to self-compassion, the results of this study support previous literature that has found self-compassion to explain unique variance in body image related constructs (Wasylikiw et al., 2012). The current study extended the literature by sampling females from an adult, community population, thus beyond student, adolescent populations. The findings of Wasylikiw et al. combined with the findings of this study, suggest that self-compassion may be an adaptive construct in conceptualising body image related constructs in women. In

relation to ACSW, the findings of this study also add to the understanding of the connection between self-esteem and body image related constructs highlighting a possible mechanism for this link.

The hypothesis that women who engaged in body image avoidance behaviours would indicate a higher investment in ACSW and lower levels of self-esteem was supported. This finding is consistent with Harter (1997) who concluded basing one's worth on appearance can lead to lower self-esteem, feeling worse about one's appearance, and feeling more depressed than those who do not feel their worth is determined by their appearance. Moreover, women with ACSW may be more likely to attempt to achieve unattainable standards of beauty, which may foster a preoccupation with their appearance that is manifested through enhanced body surveillance and body shame (John & Ebbeck, 2008; Overstreet et al., 2012). This is potentially detrimental because increased body surveillance and body shame have been found to be associated with a variety of negative outcomes such as diminished performance on demanding tasks (Fredrickson et al., 1998), body dissatisfaction (Smolak & Murnen, 2008), disordered eating (e.g., Fitzsimmons-Craft et al., 2011), and lower psychological well-being (Sinclair & Myers, 2004). Therefore, it can be assumed that women who tie their self-worth to appearance are more likely to have low self-esteem and to engage in body image avoidance behaviours.

The finding that individuals with higher levels of self-compassion reported higher levels of self-esteem was consistent with previous findings, with the majority of studies witnessing correlation coefficients between self-esteem and self-compassion ranging from  $r = .56$  to  $r = .68$  (Neff & Vonk, 2009). This suggests that the two constructs share much in common. Moreover, self-esteem is significantly associated with narcissism, whereas self-compassion is not, and self-compassion is associated with self-worth stability, whereas self-esteem is not (Neff et al., 2009). Thus, self-esteem appears to be reactive to negative

situations, but self-compassion appears to protect against the impact of those negative situations (Neff, 2003; Neff & Vonk, 2009). Although research shows that self-compassion and self-esteem are associated, the patterns of relationships with other constructs suggest that self-compassion is distinct from self-esteem. Neff (2003) and Neff and Vonk (2009) suggest that when accounting for the overlap between the two constructs, the variance accounted for by self-esteem reflects positivity of self-representations, whereas what is accounted for by self-compassion reflects acceptance of oneself. Thus, these two constructs together may provide additional insight into when and why women experience body related concerns (Wasylikiw et al., 2012).

The first central hypothesis, that self-compassion would mediate the relationship between body image avoidance behaviours and self-esteem for females was supported; however, only partial mediation was found. This finding indicates that one reason why self-esteem predicts body image avoidance behaviours may be because of variation in self-compassion. Given that self-compassion entails less harsh judgments of the self, those who are more self-compassionate may be more accepting of their physical appearance. Self-compassionate women may be less likely to engage in day-to-day avoidance behaviours, such as those related to social situations, physical intimacy, or tight-fitting clothes (Rosen et al., 1991). Given the unique contribution made by self-compassion, the pattern of relationships uncovered suggests that self-compassion is indeed linked to women's body image related concerns. Past studies have focused on the negative outcomes associated with body image (e.g., Dohnt & Tiggemann, 2006; Paxton et al., 2006), however, the present study's results suggest that variations in self-compassion may contribute to these outcomes as well. Consistent with Wasylikiw et al., (2012), this finding reinforces the idea of self-compassion as a protective factor that predicts a positive conceptualisation of body image more than self-esteem. Similarly, self-compassion may be a protective factor against the serious cognitive,

affective, and behavioural symptoms triggered by body dissatisfaction (Grogan, 2010). Within the context of body image, previous studies have found that the practice of self-compassion has the potential to lead to a greater reduction in body dissatisfaction, body shame and ACSW as well as improvements in body appreciation (Albertson et al., 2014). This research suggests that self-compassion and body image are malleable constructs and are important targets of intervention for emotional regulation, therefore having the potential to lessen the occurrence of depression and eating disorders. These findings have clinical importance because there is a significant emotional impact when an individual is less self-compassionate and holds negative views towards her physical appearance (Holverson, 2013). Looking towards self-compassion in protecting against and limiting the experience of poor body image before possible engagement in body image avoidance related behaviours is an important avenue of further investigation.

The second focal hypothesis, that ACSW would mediate the relationship between body image avoidance behaviours and self-esteem was supported; however, only a partial mediation was found. This analysis suggests that the association between self-esteem and body image avoidance behaviours may be explained, at least in part, by the domains in which people place their self-worth. Central to the ACSW theory is the idea that individuals exert more energy to maintain their self-esteem in contingent domains and less energy is directed to those domains that are less contingent (Crocker et al., 2003). For instance, research has shown that an individual whose self-worth is highly contingent on physical appearance spends more time on behaviours related to appearance, such as grooming, dieting, and exercising, and less time on behaviours associated with less contingent areas (Crocker et al., 2003). This suggests that interventions that prevent or decrease the tendency for individuals to base their self-worth on their body weight may help reduce the risk for adverse psychological outcomes. Many interventions are aimed at improving self-esteem but often

target global self-esteem (O'Dea & Abraham, 2000). Research suggests that this is not the most effective strategy because raising self-esteem does not necessarily result in improvements in domain specific self-esteem (Baumeister et al., 2003). Rather, interventions that directly target appearance self-worth and self-compassion may be more effective. Prevention programs aimed at challenging sociocultural norms regarding body weight, as well as efforts aimed at strengthening internal and global perceptions of self-worth may be effective in minimising investment in ACSW and the ensuing consequences. Becker (2013) approached stress with a similar intention: that the causes of stress stem from identifiable, concrete social or economic problems. She suggests that the stress of everyday living are due almost entirely to our individual lifestyle choices and deficiencies, and it distracts from social and economic conditions that perpetuate injustice, inequality, and 'stress.' A similar spotlight may be warranted for considering and challenging the standards and limiting social and economic issues we hold regarding body weight and image.

Although the findings of the current study constitute a useful step in better understanding the relationship between body image and self-esteem, there are limitations that highlight the need for further research. One important limitation of the current study concerns its cross-sectional nature; thus, no conclusions about the causal relationships between the constructs could be drawn. Furthermore, it is not possible to determine whether lower self-compassion leads to body image related concerns or whether positive body image leads to higher self-compassion. Moreover, just as self-esteem has been shown to be both a predictor and a consequence of body image related concerns, this could be the case for self-compassion. A longitudinal study that examines the influence of contingencies of self-worth and/or self-compassion on changes in body image over time, and vice versa, could help clarify the directionality of the relationships found in the current study. Secondly, the current study employed the BIAQ, which measures negative body image (Rosen et al., 1991). The

use of a scale that measures positive body image, such as the Body Appreciation Scale (Avalos et al., 2005), as suggested by Tylka (2011), is essential for future research. It has been argued that a positive body image is not necessarily the absence of a negative body image and that predictors of a positive body image are not the same as predictors of a negative body image. Tylka also suggests that the multifaceted and multidimensional aspects of positive body image are best measured by assessing concurrent measures that tap into its different features (Cash & Brown, 1987; Garner & Garfinkel, 1981; Rosen & Srebnik, 1990), rather than relying on a single measure that only focuses on one aspect of body image related constructs.

Finally, future research should look to sample populations outside of Western females as 87% of women in this study were white. Participants in this study self-selected based on the advertisement they would have seen online (e.g. social media) and without any incentive. The motivating reasons behind why someone would volunteer for a research study were not investigated; therefore, the generalizability of this self-selected group is limited. Further research should also examine whether similar relationships between self-esteem, self-compassion and appearance contingent self-worth hold true for males.

Despite its limitations, the current research contributes to the understanding of the conceptualisation of body image in adult females. This study extended the literature by testing and confirming the mediating role of self-compassion and ACSW in the relationship between self-esteem and body image avoidance behaviours. The findings of the current study also support previous literature by demonstrating that self-compassion is associated with indices of body image, after controlling for self-esteem. Future research exploring the underlying processes responsible for these links would constitute a useful next step. One process that may help explain why both self-esteem and self-compassion relate to body image

is social comparison. Accumulative research emphasises that women who engage in upward social comparisons are particularly susceptible to having concerns about their physical appearance (e.g., Halliwell & Dittmar, 2004). Neff (2009) argues that self-esteem relies on being better than others, whereas self-compassion does not. If it can be demonstrated that those high in self-compassion are less likely to engage in social comparison compared to those low in self-compassion, this might contribute to understanding why self-compassion predicts positive body image.

In relation to self-compassion and its three components, there are likely unique aspects that are more relevant for body image. Because there is empirical evidence that being self-compassionate is beneficial in times of perceived failure, one outstanding question is what aspect of self-compassion is responsible for these reactions. Future research may consider individual components of self-compassion. An applied implication of the current study concerns the inclusion of self-compassion training for females in the prevention and treatment of body image related concerns. Although additional empirical evidence is needed to support the effectiveness of intervention programs, it seems likely that self-compassion can contribute to the prevention and treatment of body dissatisfaction, as well as modify self-worth investment to promote the development of a positive body image in women.

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