

HOW DOES SELF-COMPASSION RELATE TO BODY IMAGE AFTER
DECONSTRUCTING SELF-COMPASSION INTO ITS THREE
FACTORS AND COMPARING SELF-COMPASSION
TO SELF-ESTEEM

By

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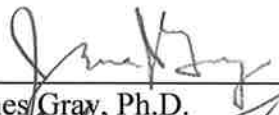
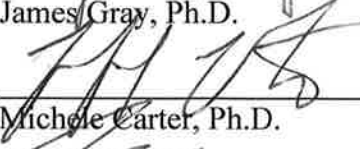
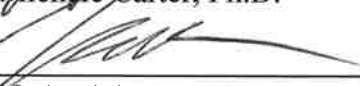
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This thesis is dedicated to all of those who struggle with body image issues with the hope that one day, when they look in the mirror, they will accept what they see and appreciate all that their body can do and has allowed them to do.

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ABSTRACT

Self-compassion is a construct that has recently become a more popular topic among researchers in psychology and similar fields. Self-compassion is a trait that is characterized by three factors: self-kindness, common humanity, and mindfulness. Current research indicates that self-compassion is negatively correlated with anxiety and depression, and positively correlated with self-efficacy and control beliefs in learning, even when controlling for self-esteem.

Also, recent research has indicated that self-compassion is negatively correlated with body dissatisfaction, yet little research has examined this relationship experimentally. Therefore, it is difficult to conclude whether having self-compassion (SC) relates to greater body satisfaction or vice-versa. This study was developed to experimentally investigate whether self-compassion could improve body dissatisfaction, how self-compassion relates to thin ideal internalization, and how self-compassion relates to a similar construct, self-esteem.

In order to examine this, 135 participants were recruited from a private university to participate in this two-part study. For Part I, participants completed 3 body image scales (BES, BAS, BSQ), a demographics questionnaire, including their height and weight to obtain BMI, Rosenberg Self Esteem Scale (RSES), Self-Compassion Scale (SCS), and the Sociocultural Attitudes Towards Appearance Subscales (SATAQ). Upon 3 to 5 days of completion of the

scales, participants visited the researcher's lab and were randomly assigned into one of four conditions for Part II: Self-Kindness, Common Humanity, Mindfulness, and Control. Each participant was given an initial Body Image State Scale (BISS 1), assessing state body satisfaction. Then, participants completed a 5-minute negative body image task and given a second Body Image State Scale (BISS 2). Participants then participated in one of four, 5-minute writing tasks, created to induce one of the 3 factors of self-compassion (Self-Kindness, Common Humanity, or Mindfulness) or to write about their dorm room (control for comparison) and responded to a final Body Image State Scale (BISS 3).

Unlike a previous study, self-compassion did not account for additional variance on weight concern or body preoccupation beyond self-esteem, indicating both factors are highly related to one another. Self-compassion did predict additional variance beyond self-esteem on body appreciation. Thin ideal internalization was also noted to be significantly related to body image. Specifically, self-compassion moderated the relationship between thin ideal internalization and weight concern. In particular, self-compassion moderated the relationship between knowing about the thin ideal and what one should ideally look like and weight concern. This indicated that self-compassion was a protective factor for those who are more likely to internalize the thin ideal. Finally, for the experimental portion of the study, all participants had increased body dissatisfaction after the negative body image induction and improved body image post self-compassion/control induction. However, none of the experimental or control groups experienced different changes in body dissatisfaction post self-compassion induction. It is unclear as to why there were no group differences. Further research should attempt to further explore the link between body dissatisfaction, self-esteem, and self-compassion, especially using experimental methodology.

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TABLE OF CONTENTS

ABSTRACT.....	ii
ACKNOWLEDGMENTS	iv
LIST OF TABLES.....	vii
LIST OF ILLUSTRATIONS.....	viii
CHAPTER 1 INTRODUCTION	1
Body Dissatisfaction	1
Social Comparison.....	4
Thin Ideal Internalization.....	6
Self-esteem and Body Dissatisfaction	7
Self-Compassion	9
Self-Compassion and Self-Esteem Compared	14
Self-Compassion and Body Image.....	17
The Current Study.....	22
Research Questions:.....	24
CHAPTER 2 METHODS	26
Participants.....	26
Measures:	26
Demographic Information.....	26
Self-Esteem	26
Self-Compassion	27
Body Image and Body Dissatisfaction.....	28
Body Shape Questionnaire.....	28
Body Esteem Scale	29
Body Appreciation Scale	29
State Body Dissatisfaction	30
Thin Ideal Internalization.....	30
Procedure	31
Analysis.....	34
Expectations:.....	36
CHAPTER 3 RESULTS	38
Descriptive Statistics.....	38
Responses to Negative Body Image Induction	45
Manipulation Check.....	46
Main Analyses	47

Self-Compassion and Self-Esteem as Predictors of Body Dissatisfaction.....	47
Thin Ideal Internalization, Self-Esteem and Self-Compassion.....	48
Can State Body Dissatisfaction be Ameliorated with Self Compassion Inductions?	54
CHAPTER 4 DISCUSSION.....	62
Self-Compassion and Self-Esteem as Predictors of Body Image	62
Self-Compassion as a Predictor of Thin Ideal Internalization	66
Does Inducing Self-Compassion Improve State Body Dissatisfaction?.....	70
APPENDIX A DEMOGRAPHICS QUESTIONNAIRE	77
APPENDIX B REGRESSION ANALYSES OF THIN IDEAL INTERNALIZATION FACTORS, BODY IMAGE, SELF-ESTEEM, AND SELF-COMPASSION.....	78
REFERENCES	82

LIST OF TABLES

Table

1: Participant Demographic Frequency Table: Ethnicity, Relationship Status.....	39
2: Participant Demographic Table: Age, Hours of Working Out Per Week, and BMI	40
3: Means and Standard Deviations for RSES, BAS, BES, BSQ, SATAQ IG, SATAQ IA, SATAQ P, SATAQ I	41
4: Participant Demographic Frequency Table Broken Down by Ethnicity: Relationship Status, Age, Hours of Working Out Per Week, and BMI.....	42
5: Means and Standard Deviations for RSES, BAS, BES, BSQ, SATAQ IG, SATAQ IA, SATAQ P, SATAQ I by Ethnicity.....	43
6: Means and Standard Deviations for the Self-Compassion Scale.....	44
7: Correlations for BMI, RSES, SCS, BES, BAS, BSQ, and SATAQ.....	45
8: Correlations Between Trait Body Image Scales (BSQ, BES, and BAS) and Percent Change on BISS 1 to BISS 2 and BISS 2 to BISS 3	45
9: Regression of Self-Esteem and Self-Compassion Predicting BSQ, BES, and BAS Scores.....	48
10: Correlations Between Thin Ideal Internalization and the Factors of Self- Compassion	50
11: BISS Means and Standard Deviations Throughout the Experimental Session	55
A: Self-Compassion X Total SATAQ Scale.....	78
B: Self-Compassion X Pressures	78
C: Self-Compassion X Information	79
D: Self-Compassion X General Internalization	79
E: Self-Esteem X Total SATAQ Scale	80
F: Self-Esteem X Pressures.....	80
G: Self-Esteem X Information	81
H: Self-Esteem X General Internalization	81

LIST OF ILLUSTRATIONS

Figure

1: Order of Inductions for Part II	34
2: Moderation of Self-Compassion for the Relationship Between Thin Ideal Internalization and Weight Concern	52
3: Self-Compassion as a Moderator of the SATAQ Subscale: Information and Weight Concern	54
4: Change in BISS Scores by Condition	58

CHAPTER 1

INTRODUCTION

Body dissatisfaction, although considered a normative issue that many women face, can lead to many negative outcomes such as mood disturbances, disordered eating, and shame. It has become an ever-pressing task to uncover what helps or worsens body image. While many researchers have focused on the risk factors and effects of body dissatisfaction, there is a trend currently to also understand factors that may buffer or ameliorate body dissatisfaction such as self-esteem. There has also been an increase in focus on third wave psychological factors that may be protective against body dissatisfaction beyond self-esteem. This thesis focuses on the potential benefits of one of these third wave psychological factors, self-compassion, in ameliorating body dissatisfaction in addition to comparing it to a related construct, self-esteem.

Body Dissatisfaction

Body dissatisfaction is considered to be highly problematic given that it is widespread among adolescent females, women, and even males. Body dissatisfaction is measured in many ways. Researchers conceptualize body image disturbances as weight concern (Field et al., 1999; Posavac, Posavac, & Posavac, 1998), body preoccupation (Klemchuk, Hutchinson, & Frank, 1990), body shame (Overstreet, Quinn, & Agocha, 2010), the degree someone compares themselves to others (Posavac, Posavac & Posavac, 1998), social physique anxiety (Russell & Cox, 2003), and body checking (Grilo et al., 2005; Latner, Mond, Vallance, Gleaves, & Buckett, 2012).

Body dissatisfaction is correlated with many negative outcomes. For one, research indicates that body dissatisfaction relates to guilt and shame (Forbes, Jung, Vaamonde, Omar, Paris, & Formiga, 2012; Tiggerman & Williams, 2012), low self-esteem (Makinen, Puukko-

Viertomies, Lindberg, Siimes, & Aalberg, 2012; Mellor, Fuller-Tyszkiewicz, McCabe, & Ricciardelli, 2010), depression (Brausch & Gutierrez, 2009; Franko & Striegel-Moore, 2002; Stice, Hayward, Cameron, Killen, & Taylor, 2000), and anxiety (Etu & Gray, 2010). Body dissatisfaction is also associated with the development and maintenance of eating disorders and body dysmorphic disorder (Bailey & Ricciardelli, 2010; Stice, Marti, & Durant, 2011; Stice & Shaw, 2004).

Body dissatisfaction has also been linked to and is influenced by a variety of factors. Cash and Pruzinsky, (2002), propose that body image disturbance can be explained by one's a) socialization by culture, b) personality characteristics, c) activating events and situations, and d) interpersonal experiences. Other activating events that are believed to be related to body dissatisfaction are early onset of puberty, body mass index (BMI), acute triggers such as sexual abuse or harassment, accidents, injury, and/or disease (Cassin & von Ranson, 2005).

Body dissatisfaction has also been noted to relate to one's body mass index (BMI). In a two year longitudinal study, Ohring, Graber, & Brooks-Gunn (2002) noted that girls with higher BMIs were more likely to experience body dissatisfaction than other girls who were lower on the BMI spectrum. Similarly, Prichard and Tiggerman (2008) conducted a study to understand how working out, specifically workout duration and type, would relate to body dissatisfaction. Time spent exercising within the fitness center environment was more highly related to body image and eating disturbance than if a participant worked out outside of the fitness center. Cardio workouts (such as running or using an elliptical) were also related to disordered eating behavior. Participants who also regularly participated in cardiovascular workouts endorsed working out for appearance-related reasons and had lower self-esteem (Prichard & Tiggerman, 2008). Therefore, BMI and kind of workout may relate to body dissatisfaction.

Research has also indicated that ethnicity is a factor related to body dissatisfaction (Grabe & Sibley Hyde, 2006; Lopez, Blix, & Gray, 1995; Rosen & Gross, 1987). For instance, Ackard, Croll, and Kearney-Cooke (2002) have noted that African American women have a more positive body image than Caucasian women. It also appears that African American women have less desire to be thin than White women and Hispanic women (Demarest & Allen, 2004). Furthermore, while results are less clear, some studies have also indicated that White women are more dissatisfied with their bodies than Asian Americans (Franzoi & Chang, 2002); other studies have indicated that White women and Asian American women experience similar body dissatisfaction (Arriaza & Mann, 2001; Cash, Melynnyk, & Hrabosy, 2004). The same inconsistent findings have been noted between Caucasian women and Hispanic women (Barry & Grilo, 2002; Demarest & Allen, 2000; Cash et al., 2004; Shaw, Ramirez, Trost, Randall, & Stice, 2004).

In order to better understand how ethnicity may relate to body image dissatisfaction, Grabe and Hyde (2006) conducted a meta-analysis of research conducted from 1960 to 2004 to better understand these potential differences in body dissatisfaction and ethnicity and how these differences may have changed over time. The researchers noted that mean effect sizes indicated that most studies supported that Caucasian women had greater body dissatisfaction than African American, Asian American, and Hispanic women. African American women also had lower body image dissatisfaction than Asian American and Hispanic women. Asian American women appeared to have greater body image dissatisfaction than Hispanic women.

When the researchers looked at the effect sizes for these differences they noticed that they were fairly small. For instance, the weighted mean effect size for the difference between Caucasian and African American women's body dissatisfaction was 0.29 (Grabe & Hyde, 2006).

Additionally, it appears that African American women experienced less body dissatisfaction than Caucasian women but endorsed experiencing similar levels of present or current ideal body discrepancy. This implies that both ethnicities were equally able to see how their bodies may not have been as close to their perceived attractiveness. The researchers also noticed that effect sizes for differences in body dissatisfaction among Caucasian and African American women have become smaller over time which suggests these differences in body dissatisfaction between ethnicities may be shrinking.

When the researchers examined mean effect sizes for the difference between White and Asian American women, White and Hispanic Woman, African American and Asian women, and Asian American and Hispanic women, they noted that both groups did not difference from each other based on the very small effect sizes (0.01, 0.09, -0.12, and -0.07 respectively). There was a small difference between African American and Hispanic women such that Hispanic women indicated they experienced greater body dissatisfaction than African American women. While these findings indicate less differences in general, and may illustrate that these differences are decreasing over time, these findings are still not conclusive.

Social Comparison

Research has also noted that social comparison is a major factor that contributes to body dissatisfaction. Festinger (1954) first proposed social comparison theory to explain the desire to compare one's own life situation, progress, and life standing to others as a way of understanding one's own fit and acceptance in society. There are two different types of social comparison: upward social comparison and downward social comparison. Upward social comparisons occur when people compare themselves to someone who is perceived to be better in some way than

themselves. Downward social comparisons, conversely, are comparisons of oneself to others who they perceive to be worse off on some level than they are.

Research specifically examining upward and downward social comparison in relation to body dissatisfaction has provided some interesting results (Halliwell & Dittmar, 2004; Myers & Crowther, 2009; Tiggerman & Polivy 2010). In a meta-analysis, Myers and Crowther (2009) have noted that the effect sizes were moderate while examining the relation between body dissatisfaction and self-esteem. It appears that contrary to social comparison theory, where people tend to compare themselves to similar others, women have a propensity to make upward comparisons to unrealistic thin ideal images more often than they do for similar peers (Engeln-Maddox, 2005; Strahan, Wilson, Cressman, & Buote, 2006). These comparisons seem to be associated with negative reactions to one's own body and general body dissatisfaction (Bessenoff, 2006; Engeln-Maddox, 2005; Leahey, Crowther, & Mickelson, 2008; Stormer & Thompson, 1996; Tantleff-Dunn & Gokee, 2002).

Certain characteristics or traits may moderate the relationship between social comparison and body dissatisfaction. Myers and Crowther (2009) have reported that adolescents and young adults are more prone to body dissatisfaction as a result of social comparison, perhaps due to their bodies changing and having to become accustomed to these changes. At this age, they may also increase their attention to role models in the media and similar peers in their age group versus family.

Stormer and Thompson (1996) conducted research that indicates that after controlling for self-esteem and weight, social comparison was still related to higher levels of body dissatisfaction. While social comparison is may not be a main factor in the development of eating disorders, the high availability of media images may not help those coping with feelings of

inadequacy in regards to the thin ideal and their bodies. These feelings of shame may then lead to negative outcomes such as rumination and/or disordered eating.

Thin Ideal Internalization

Social comparison relates to another predictive factor of body dissatisfaction: thin ideal internalization (Durkin, & Paxton, 2002; Thompson & Stice, 2001). Thin ideal internalization is the amount to which a person accepts and endorses the ideals of what society defines as attractive. Currently, this ideal is one that promotes thinness, a youthful appearance, and symmetry (Dittmar & Howard, 2004). Thin ideal internalization relates to social comparison in that females who are more apt to compare themselves to their peers and social ideals are more sensitive to media exposure endorsing the thin ideal and body dissatisfaction (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). In general, most studies have indicated that thin ideal internalization predicts body dissatisfaction (Thompson & Stice, 2001).

In experimental studies, many researchers have presented images that represent the thin ideal to adolescents and women to understand whether these images promote body dissatisfaction. Durkin and Paxton (2002) conducted a study that demonstrated that thin ideal images lionized by the media relate to lower body dissatisfaction. The researchers had two experimental conditions; one group viewed thin young fashion models and the other saw advertisements for fashion accessories such as shoes and bags. The group that viewed the fashion models had a greater increase in body dissatisfaction after viewing the ads than the control group, which supported the hypothesis that thin ideal internalization can cause body dissatisfaction. Additionally, among girls in the study who were in Grade 10, body comparison and internalization predicted negative outcomes on state body satisfaction in addition to state depression (Durkin & Paxton, 2002).

Thin ideal internalization has also been noted to relate to difficulties in self-esteem. Women with body image dissatisfaction due to thin ideal internalization tend to have self-esteems that are sensitive to their perception of their bodies (Geller, Johnston, Madsen, Goldner, Remic & Birmingham, 1998). Balci et al. (2013) also found that thin ideal internalization was negatively correlated with self-esteem. During their study, participants filled out the Sociocultural Attitudes Towards Attractiveness Questionnaire (SATAQ) and the Rosenberg Self-Esteem Scale (RSES) and the results implied that indirect awareness of the thin ideal (implicitly being aware of the thin ideal) was related to baseline (and un-manipulated) self-esteem and thin ideal internalization. This moderation indicated that being aware of the thin ideal can lead to lower baseline self-esteem because a person has internalized the thin ideal. When participants were instructed to evaluate their bodies, self-report internalization of the thin ideal was not a predictor of changes in self-esteem.

Other research has demonstrated that not all women are sensitive to, or react to the thin ideal. Many studies have indicated that women remain unaffected (i.e. body dissatisfaction and self-esteem remain the same) after exposure to media images (Heinberg & Thompson, 1995; Prosavac et al., 1998). The women who endorse greater initial body dissatisfaction seem to be at greater risk for greater body dissatisfaction, lower self-esteem, and greater increases in mood disturbance after being presented with thin ideal images (Groez, Levine, & Murnen, 2002; Prosavac et al., 1998).

Self-esteem and Body Dissatisfaction

Researchers have also examined the relationship body dissatisfaction and self-esteem. It has generally been noted that dissatisfaction with one's appearance (i.e. body and/or shape) is associated with lower self-esteem (Cash & Flemming, 2002; Cooley & Toray, 2001; Stice, 2002;

Stice & Whitenton, 2002). Low self-esteem also predicts body concerns (Button, Sonuga-Barke, Davies, & Thompson, 1996). Therefore, it appears that low self-esteem could be both a predictor as well as a result of body concerns (Grogan, 2007; Tiggerman, 2005).

Additionally, Posavac and her colleagues (1998) assessed whether a women's perception of how far away from the thin ideal a person sees themselves and their general self-esteem may influence their body dissatisfaction, as measured by weight concern. Women who felt they were further away from the thin ideal and/or had lower self-esteem were more apt to experience weight concern. It appears that body dissatisfaction, as measured through body preoccupation and weight concern is related to self-esteem, the tendency to compare oneself with others, and one's perceived deviance from the thin ideal. Thompson and Stice (2001) have further recommended evaluating what factors promote thin ideal internalization or mediate the relationship between thin ideal internalization and body dissatisfaction.

Conversely, high self-esteem has been linked to positive body image and evaluation of one's body (e.g. Connors & Casey, 2006; Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006; Swami, Airs, Chouhan, Leon, & Towell, 2009; Tiggermann, 2005). Additionally, Tylka and Sabik (2010) conducted a study examining social comparison theory and self-esteem. They recruited 274 females and provided them with the Rosenberg Self Esteem Scale (Rosenberg, 1965) and other scales looking at the tendency to compare their bodies with others. The researchers noted that self-esteem negatively predicted body surveillance, body comparison, and body shame.

However, high self-esteem, while also correlated with happiness (Lucas, Diener, & Suh, 1996), initiative, resilience, and pleasant feelings (Baumeister, Campbell, Krueger, & Vohs, 2003), is also correlated with some negative outcomes. For one, high self-esteem is reliant on

meeting standards and comparing oneself to others in order to understand one's own place (Neff, 2009). It is also associated with narcissism and aggression (e.g., Baumeister et al., 2003; Crocker & Park, 2004). Furthermore, self-esteem is a gauge by which people monitor how others appraise them, which could be harmful if someone thinks people will find them less attractive, successful, or as likeable as others. Additionally, self-esteem has been noted to be an outcome of success or doing well, and doesn't help promote success (Baumeister et al., 2003).

However, it is important to note, that despite the associated negatives with self-esteem, self-esteem does seem to relate to a more positive view of one's body image.

Self-Compassion

Recently, researchers have been focusing on alternative constructions of self-acceptance and self-perception given some criticisms on the benefits of self-esteem for mental health and more specifically, body image (Baumeister et al., 2003; Crocker & Park, 2004). Specifically, researchers have been focusing on the construct of self-compassion (Adams & Leary, 2007; Allen & Leary, 2010; Iskender, 2009; Neff, 2003a; 2003b; Neff & McGehee, 2010; Terry & Leary, 2011; Werner, Jazaieri, Goldin, Ziv, Heimberg, & Gross, 2011). Self-compassion, a construct validated by Kristen Neff (2003), is defined as the ability to be aware and open about one's flaws, while still being kind towards oneself. It also is also defined by the ability for someone to acknowledge that they are not uniquely experiencing the feelings that they have (Neff, 2003a, 2003b). Neff (2003) conceptualizes self-compassion to have three major components: self-kindness, common humanity, and mindfulness.

The first factor of self-compassion, *self-kindness*, is the ability for a person to be kind to themselves regardless of their successes or failures. Therefore, this factor relates to the ability to accept imperfection. It should also enable the person to see their own reality and perceive their abilities and flaws with understanding and empathy.

The second factor, *common humanity*, occurs when instead of seeing oneself as the only individual experiencing certain problems or emotions, the person is able to realize that their experiences are universal, and that others may experience them as well. For instance, most students have done poorly on a test for one reason or another; common humanity is the ability to acknowledge that while they may have failed a test, other students may have as well. They realize that they are not the only ones to experience disappointments related to that outcome.

Mindfulness, the last factor of self-compassion, is the ability to be mindful rather than to over-identify with (ruminate) on one's shortcomings (Neff, 2003). To possess mindfulness, one should be aware without overly fixating on their existing feelings and thoughts, but instead of running away from them, the person notices them and tries to maintain non-judgmental awareness of it.

In an initial validation study, self-compassion as a construct appears to be psychometrically sound (Neff, 2003). All of the three positive factors of self-compassion correlate with each other (self-kindness, common humanity, mindfulness). In the Self-Compassion Scale (SCS), Neff (2003) included factors that are opposite to the positive self-compassion factors. These factors: self-judgment, isolation, and over-identification, are oppositely coded and indicate lower self-compassion.

Self-judgment is the tendency to judge one's flaws in a non-forgiving manner. Isolation, the contradiction of common humanity, is the tendency to perceive one's own struggles as unique to oneself. A person who is high in Isolation may feel as if others will not be able to understand how or what they are feeling and that they are the only ones to feel as they are. Over-identification is opposite to mindfulness; endorsing large degrees of over-identification may indicate that a person overly fixates on their flaws and has a difficult time objectively identifying feelings and thoughts because of it. The negative factors of self-compassion correlate positively with each other and are oppositely coded when producing a total self-compassion score. The negative factors (Self-judgment, Isolation, and Over-identification) are negatively related to all three positive self-compassion factors.

It appears that self-compassion, is similar among ethnic groups (Neff, Rude, & Kirkpatrick, 2007) although little research has been conducted to specifically evaluate these differences. Self-compassion is also higher for males than for women, who tend to endorse the negative factors of self-compassion to a greater degree than their male counterparts (Neff, 2003a). Furthermore, higher self-compassion is correlated with less depression and anxiety (Neff, 2003a; 2003b). While self-esteem is correlated with self-compassion, when controlling for variance in self-esteem scores, self-compassion is negatively correlated with depression and anxiety scores, showing that beyond self-esteem, self-compassion predicts such scores (Neff, 2003; Wasylikiw, MacKinnon, & MacLellan, 2012). Self-compassion also correlates negatively with rumination.

Research has also indicated that self-compassion is correlated with other positive outcomes. Neff, Rude, and Kirkpatrick (2007) conducted a study to understand how self-compassion would predict positive functioning and personality-related factors. Self-compassion

was negatively correlated with neuroticism and positively correlated with extroversion, openness to experience, and conscientiousness. Additionally self-compassion was also positively correlated with happiness, optimism, and curiosity. Although it is important to note that one does not know whether self-compassion causes personality traits or whether the personality traits lead to self-compassion, the researchers noted that after conducting regression analyses, that self-compassion predicts happiness, optimism, and curiosity over the 5-factor model of personality they compared self-compassion tendencies to. In a more general study, self-compassion appears to correlate positively with other factors such as life satisfaction and an emotional processing subscale of a scale looking at coping methods (Neff, 2003).

Self-compassion has also been studied in relation to achievement goals, coping with academic failure, and control beliefs about learning (Iskender, 2009; 2011; Neff, Hsieh, & Dejitterat, 2005). Neff, Hsieh, and Dejitterat (2005) have noted that self-compassion is positively associated with mastery goals and negatively associated with performance goals. This was mediated by less fear of failure and related to a greater perceived competence among those who were more self-compassionate. When participants (students) received a bad grade on an exam self-compassion was positively associated with emotion focused coping strategies and negatively associated with avoidance-oriented strategies, which are both more productive and detrimental coping styles respectively (Thoits, 1995). Furthermore, Iskender (2009) noted a similar trend. Self-kindness, awareness of common humanity, and mindfulness (the positive factors of self-compassion) were positively correlated with self-efficacy and control belief of learning. Control belief for learning occurs when students believe that their efforts to learn will result in positive outcomes. Higher scores on the negative factors of the SCS (self-judgment and isolation) were negatively associated with self-efficacy and self-kindness.

In another extensive study, self-compassion was examined in relation to unpleasant life events (Leary, Tate, Adams, Allen, & Hancock, 2007). The study employed experience sampling, reactions to interpersonal feedback, ratings of videotaped performances in an awkward situation, and reflections on negative personal experiences, in addition to mood inductions to further examine self-compassion as a potentially positive trait to possess in conjunction with unpleasant experiences. Those higher in self-compassion appeared to have more emotional resilience to daily difficulties (more adaptive responses) in addition to greater self-concept accuracy when they were assessing their own performances. When encountered with humiliating situations, higher degrees of self-compassion were related to fewer negative emotional reactions while self-esteem was not a protective factor.

People with higher self-compassion are also noted to have higher degrees of self-improvement motivation (Baker & McNulty, 2011; Breines & Chen, 2012). Although this concept may be counterintuitive since self-compassion is believed to be a buffer against self-judgment, the authors believed that it would propel those with higher degrees in the self-compassion to accept their roles in a negative situation. This would enable them to notice things they want to change without judging their shortcomings as failures and becoming more upset by these shortcomings (Breines & Chen, 2012; Neff, Hseigh, & Dejithirat, 2005; Kwan, John, Robins, & Kuang, 2008; Leary et al, 2008). Self-compassion is also associated with motivation to exercise for intrinsic purposes, which is another example of self-compassions role in motivating positive life changes and outcomes (Magnus, Kowalski, & McHugh, 2010).

Whether purposeful or not, researchers and clinicians have started to develop treatments that incorporate self-compassion. For instance treatments such as Meditation-Based Stress Reduction program (Kabat-Zinn, Massion, Kristeller, et al., 1992) Mirror Exposure Therapy

(Delinsky & Wilson, 2005), Dialectical Behavior Therapy (DBT; Robins, Ivanoff, & Linehan, 2001), and Self-Affirmation therapy (Bucchianeri & Corning, 2012) have been developed. Furthermore, there have also been other more specific compassion-based therapies such as Compassion Focused Therapy (CFT; Gilbert, 2000; 2010; Gilbert & Procter, 2006) and as self-compassion program designed by Neff and Germer (2012). Results have been promising and developing even more interventions and continuing research on already existing ones may prove to be beneficial in the improvement of many psychological issues such as depression, anxiety, body image, disordered eating, etc.

Self-Compassion and Self-Esteem Compared

In order to further differentiate self-compassion and self-esteem given that they are correlated (Neff, 2003a; 2003b; Leary et al., 2007), Neff and Vonk (2009) compared self-compassion and global self-esteem. As stated earlier, self-esteem was correlated with narcissism, while self-compassion was not indicated to be. Self-compassion scores were also less reliant on particular outcomes than self-esteem scores and were also more predictive of stable feelings of self-worth and than self-esteem. Additionally, there was a stronger negative association between self-compassion with social comparison, public self-consciousness, self-rumination, anger, and the need for cognitive closure. This illustrates that high self-compassion may relate to a decreased tendency to defend ones “ego” more so than if someone is trying to enhance their self-esteem. It may mean that those higher in self-compassion feel less need to evaluate themselves because of inherent “non-performance based awareness of themselves” (Neff, 2003a; 2003b; Neff & Vonk, 2009).

Leary et al. (2007) have also attempted to differentiate between self-compassion and self-esteem. In one of their studies, participants were given the Rosenberg Self Esteem Scale, the

Self-Compassion Scale, and the Narcissistic Personality Inventory, assessing narcissistic tendencies. Participants were asked to read three hypothetical scenarios involving getting a poor grade on a test, being responsible for the loss of a major athletic competitions, and forgetting their role while performing on stage. Participants had to reply to questions about how badly they felt about making the mistake and rated the degree to which they experienced four types of feelings such as sadness, anger, embarrassment, and feelings of incompetence. Participants also indicated how they would react to the situation and what they would think about the situation. The researchers noted that self-compassion predicted unique variance in emotion for all three scenarios while self-esteem did not account for any unique variance.

Another study Leary et al., (2007) conducted evaluated how self-compassion and self-esteem would moderate reactions to feedback with the assumption that self-compassion and self-esteem moderate these reactions in unique ways. Participants were video recorded while talking about themselves. They discussed topics such as their hobbies, interests, future plans, their hometown, etc. Participants were in two different feedback conditions, positive (where they were rated highly) or the neutral feedback condition. Participants then reacted to this feedback and completed state self-esteem scales, attributions for the feedback, etc. The participants also responded about their mood after their discussions and whether they believed that the assessments on their personality were representative of themselves. Participants who received more positive feedback rated the other person's impressions more positively and acknowledged that the observer liked them more. Self-compassion moderated participants' rating of the feedback such that those participants who had higher self-compassion rated the neutral feedback as more positive than those with lower self-compassion. Self-compassion did not relate to the ratings of positive feedback.

Another study that Leary and his colleagues conducted (2007) was the first to experimentally induce self-compassion. Participants were instructed to respond to a prompt asking them to describe a negative event that they experienced in high school or college that made them feel badly about themselves. After this, participants were separated into four experimental conditions: the self-compassion induction, self-esteem induction, writing control, and control condition. The self-compassion group was instructed to list ways that other people experience similar events (common humanity), write a paragraph expressing kindness and understanding to themselves in the same they would a friend who went through the same experience (self kindness), and describe their feelings about the event in an objective and unemotional manner (mindfulness). The participants in the self-esteem group were told to write down their positive characteristics, and explain why the event was not entirely their fault in order to help them reinterpret the event so that they felt better about themselves. Lastly they were instructed to explain why the event does not indicate who they are.

The other writing and control conditions wrote either about how events can change how people feel or to just respond to the exit questionnaire assessing mood and how responsible they felt for the events (the dependent variables) without any writing exercise. Participants who were in the self-compassion group had lower negative affect than the participants in the other groups (self-esteem, self-disclosure, and control). Leary et al. (2007) also noted that participants in the self-compassion group thought the event was caused more by the kind of person that they were. Therefore participants in the self-compassion group took ownership of their own situation and accepted responsibility for the event while still experiencing lower negative affect than the other groups. This supported Neff's (2003) hypothesis that self-compassion enables people to both assess themselves more accurately, but still experience greater life satisfaction.

Self-Compassion and Body Image

Self-compassion has also been studied in conjunction with body dissatisfaction given the strong evidence from previous studies indicating that self-compassion is beneficial and may act as a buffer against negative reactions to one's shortcomings. Given the wide array of normative discontent with one's body (Tantleff-Dunn, Barnes, & Larose, 2011) and the negative association between body dissatisfaction and self-esteem and other negative outcomes, any further understanding of theorized protective traits may help provide clinical implications and beneficial insights as to how to protect women against body dissatisfaction. Indeed women with positive body image tend to be more unapologetic in regards to their bodies and flaws, while rejecting unrealistic media ideals (Wood-Barcalow, Tylka & Augustus-Horvath, 2010).

Self-compassion is hypothesized to be beneficial in improving or buffering against body dissatisfaction because it may act as an emotional regulation strategy that can aid people in accepting themselves even beyond any flaws since body dissatisfaction occurs when a person perceives a discrepancy between their assessments of their body in comparison to the ideal (Albertson, Neff, & Dill-Shackleford, 2014). In particular, Albertson et al. (2014) claim that each factor of self-compassion would lesson body dissatisfaction in many ways. For one, self-kindness should help people be kinder to themselves rather than judge themselves because of their perceived body flaws. Common humanity will act as a buffer against body dissatisfaction because it will allow women to think of their appearance in relation to other women and acknowledge the reality that women's bodies vary greatly and that many women experience similar concerns. Mindfulness is helpful in ameliorating or improving body image disturbance because it will help women cope with painful thoughts and emotions and may prevent women from ruminating about their body parts they dislike.

There has been empirical support that self-compassion is a beneficial trait that protects against negative body image. Breines and her colleagues (2013) conducted a study to evaluate how self-compassion would relate to body image and self-reported disordered eating. Their study was completed in two parts. The first study was a diary study examining over four days whether taking a self-compassionate stance to negative body image related thoughts would relate to less disordered eating. Breines et al. (2014) noted that when participants experienced greater self-compassion over the four days, there was a tendency for the participants to self-report lower levels of disordered eating even when controlling for self-esteem.

The second study was a lab experiment, where the researchers invited the participants to discuss body flaws and how they feel about that part of the body. Participants then completed questionnaires evaluating self-compassion related to one's body, self-esteem, body shame, and anticipated disordered eating. Breines et al. (2014) also had participants eat chocolate to assess how restrained eating may relate to self-compassion and body shame. Self-compassion predicted lower body shame and lower anticipated disordered eating. After self-esteem was added to the regression analyses, self-compassion still predicted lower body shame and anticipated disordered eating while self-esteem was not indicated to significantly predict either outcome.

Social physique anxiety is also negatively correlated with self-compassion (Magnus, Kowalski, & McHugh, 2010). Self-determination theory is a theory that establishes the reasoning by which people will work out. There are five types of workout motivation: external and introjected are centered on external factors and are coerced by one's environment. The other three factors are more reflections on motivations established from an individual. These motivation factors are identified, integrated, and intrinsic. There is an overlap in the self-compassion literature and self-determination literature such that individuals who are self-

compassionate will be more prone to autonomous motivation (identified, integrated, and intrinsic) just as those with the more individualistic reasons for working out. Additionally the researchers assessed whether ego driven (the desire to demonstrate competence in comparison to others or to avoid failure) goal orientation or task driven goal orientation (the desire to develop new skills, master tasks, etc.) relate to self-compassion. Lastly, researchers hypothesized that social physique anxiety would also be negatively associated with self-compassion.

Magnus and colleagues (2010), noted that the more individualized determination factors were correlated with self-compassion; self-compassion was negatively associated with external and interjected self-determination to work out, ego goal driven behavior, social physique anxiety, and obligatory exercise. Further analyses indicated that self-compassion predicted unique variance even beyond self-esteem for intrinsic motivation, and ego goal orientation. Self-compassion did not predict unique variance for social physique anxiety or obligatory exercise. This indicates that self-compassion is negatively related to seeking goals to avoid failure or to compare oneself to other however self-compassion may not be different from self-esteem in how it protects women against social physique anxiety.

In a recent investigation of self-compassion and body image, Wasylikiw et al. (2012) have also noted that self-compassion seems to be negatively associated with body dissatisfaction. In their study, self-compassion positively predicted body appreciation and negatively predicted weight concern as measured by the Weight Concern Scale, which is a part of the Body Esteem Scale. Self-compassion was also a negative predictor of body preoccupation illustrating that participants with higher self-compassion reported lower body preoccupation.

In their study, Wasyliw and colleagues (2012) also assessed differences between self-compassion and self-esteem in predicting body preoccupation, weight concern, and body appreciation. The authors noted that these three body image constructs were related to both self-esteem and self-compassion. After completing a hierarchical regression analyses, self-esteem scores were a significant predictor of low scores on the Body Shape Questionnaire measuring body preoccupation. The predictive relationship between self-esteem and body preoccupation then became insignificant when self-compassion was included in the model (Wasyliw et al., 2012). Self-compassion was also a positive predictor of body appreciation when controlling for self-esteem. Lower weight concerns were also uniquely predicted by self-compassion even when self-esteem was controlled for.

In the second study conducted by Wasyliw and colleagues (2012), the researchers were interested in understanding how self-compassion would relate to body preoccupation and restrained eating over self-esteem. It appears that self-compassion does not account for further variance above self-esteem for body preoccupation and restrained eating, unless the subscales of the SCS are analyzed. Only self-judgment was significant and only accounted for 7% of the variance between self-compassion and body preoccupation. Additionally, when conducting a regression analysis for eating guilt, including self-compassion scores accounted for more variance than self-esteem. Therefore, after controlling for self-esteem, increasing self-compassion was associated with less guilt after eating foods that are considered to be unhealthy.

A recent study conducted by Albertson, Neff, and Dill-Shackleford (2014) was the first to experimentally evaluate the link between self-compassion and body image. In their study they provided a self-compassion meditation training tape to participants for 3-weeks or assigned participants to a control, waitlist group. Using a 2 (experimental vs. waitlist condition) x 2

(baseline, post treatment design), the authors evaluated whether self-compassion meditation training in general would lead to higher levels of self-compassion, body appreciation, lower levels of body shame, and contingent self-worth due to appearance in comparison to the control group. The experimental group had larger increases in self-compassion in comparison to the control group. Participants also had larger improvements in body shame, body dissatisfaction, and contingent self-worth based on appearance. Participants' body appreciation also significantly increased. These changes were maintained after 3 months among the experimental group, when the researchers provided follow-up questionnaires to participants.

Mindfulness training has been noted to improve body dissatisfaction. For instance, mindfulness training added to a mirror-exposure treatment over the course of 3 one-hour sessions lead to improvements in body satisfaction and less weight/shape concerns (Delinsky & Wilson, 2006). Researchers have also noted that Acceptance and Commitment Therapy (ACT) and Dialectical Behavioral Therapy (DBT), which both feature mindfulness exercises and emphasize acceptance, are beneficial treatments in ameliorating body dissatisfaction (Pearson et al., 2012; Telch et al., 2001). While these are predominantly mindfulness-based treatments, mindfulness is considered to be one of the core factors of self-compassion. These promising results along with the recent findings by Albertson et al. (2014) warrant further research on the benefits of teaching self-compassion.

Continued research examining the relationship between self-compassion and body image has also been suggested by other researchers. Wasylikiw and her colleagues (2012) have recommended investigating whether age or being from different cultures relates to this relationship. Additionally no studies have been conducted on men in order to understand the link between self-compassion and lower body dissatisfaction which may prove to be interesting

considering that normative data indicate that males have greater self-compassion than women (Neff, 2003; Wasylikiw et al., 2012). Further research should also focus on longitudinal studies in order to understand the direction of the relationship between self-compassion and body image and vice versa (Wasylikiw et al., 2012). Finally Wasylikiw et al. (2012) suggested examining whether those who are higher in self-compassion are less likely to either be affected by or even partake in social comparison over those with low self-compassion. It has been noted that women who engage in upward social comparisons are more likely to have body dissatisfaction (Halliwell & Dittmar, 2004). A related topic of thin idealization that relates to social comparison is also a great next step in understanding self-compassion's relationship to body dissatisfaction.

The Current Study

This study was designed to elaborate on some of the extant research conducted to understand the relationship between self-compassion, self-esteem, and body image while adding another variable, thin ideal internalization to some of the analyses. The first part of the study was designed to replicate previous findings that self-compassion, even when controlling for self-esteem is predictive of lower body preoccupation, weight concern, and greater body appreciation (Wasylikiw et al., 2012). Given the fact that Wasylikiw et al. (2012) were the first research group to evaluate body dissatisfaction and related factors, replication is warranted.

Little research has been conducted to understand whether thin ideal internalization relates to body dissatisfaction and self-compassion. However, researchers have examined how self-esteem or other similar factors might. Research findings support that there is evidence that high acceptance (whether a person is aware or unaware of it) of thin ideal internalization increases body dissatisfaction (Thompson & Stice, 2001). Researchers speculate that women who are high in thin ideal internalization have accepted the stringent rules of attractiveness that western

society has defined for them. Since self-compassion appears to be a more forgiving trait and allows for greater self-acceptance that is not judgmental, this study was also intended to examine whether self-compassion may mediate the relationship between thin ideal internalization and body dissatisfaction.

The current study also examined whether inducing self-compassion may ameliorate state body dissatisfaction. While research has indicated that self-compassion is protective against body dissatisfaction by using questionnaires and correlations, this study is the first attempt to experimentally investigate whether inducing self-compassion after inducing momentary body dissatisfaction can ameliorate state body dissatisfaction. Given previous findings that broader treatments on mindfulness or general self-compassion were successful in treating body dissatisfaction, it would be beneficial to understand how attempts to specifically improve self-compassion in relation to body dissatisfaction may help. Specifically, it may be interesting to see if one of the factors of self-compassion specifically improves momentary body dissatisfaction.

In order to experimentally induce self-compassion to examine whether it can improve body dissatisfaction, the researcher pulled from previously used methodology, as discussed earlier, to induce self-compassion. Such methodology comes Leary et al. (2007) in their fifth study. Leary et al. (2007) had participants write about a negative life event from their past and respond to questions about it. They were specifically asked to describe what happened and how they felt. The participants were then assigned to one of four conditions: a self-compassion induction, self-esteem induction, writing control and control condition.

While the current study is assessing the relationship between body dissatisfaction and self-compassion, similar wording and manipulations were used more specifically in relation to body dissatisfaction. For instance, instead of asking participants about an event where they

made a mistake and that made them feel embarrassed, sad, etc., the current study had participants focus on parts of their body they were not satisfied with and compare their bodies to other women in order to induce negative body image. While comparing whether inducing self-compassion to self-esteem to ameliorate body dissatisfaction would have been equally interesting, no research has been conducted to examine how inducing any of the three specific factors of self-compassion may relate to outcomes. Therefore this study deconstructed self-compassion into its three different factors. These factors then became different experimental groups; participants were assigned to one of the different factors (i.e. self-kindness, common humanity, mindfulness, or a control condition). Participants then participated in a self-compassion induction specific to the factor that they were assigned to see if one of the factors, if any, is more effective in ameliorating state body dissatisfaction. The main variable being evaluated is whether there was a difference in change from the negative body image induction to the post self-compassion induction among the control and experimental groups or any of the self-compassion groups themselves.

Research Questions:

H₁= Given previous research findings, self-compassion will predict women's body image (body preoccupation, weight concern, and body appreciation). Furthermore, self-compassion will predict unique variance above self-esteem on all three measures.

H₂= Research has indicated that thin idealization predicts body dissatisfaction. Thin ideal internalization will predict body preoccupation, weight concern, and negatively predict body appreciation. Self-esteem may moderate the relationship between thin ideal internalization and the three body image factors (body preoccupation, weight concern, and body appreciation). Self-

compassion may also moderate the relationship between thin ideal internalization and the three body image factors.

H₃= Self-compassion inductions after a negative body image induction will lead to greater decreases in body dissatisfaction than for those in the control group.

H₄= As an exploratory analysis: There will be a difference in improvements in body dissatisfaction after a negative body image inductions among the self-compassion groups: i.e. Self-Kindness, Common Humanity, and Mindfulness.

CHAPTER 2

METHODS

Participants

College-age females from American University were recruited to participate in the current study. Participants were recruited from the psychology department for class credit, or from the university listserve for an entry into a raffle for a \$75 Target gift-card. This recruitment allowed for more variation in subjects and a larger sample size. The total number of participants recruited for the study was determined by conducting a priori power analysis in G-Power to understand the ideal number of participants to obtain a small effect size. In order to obtain a small effect size of Cohen's $D = .25$, a total Alpha level of .05, and a power of 0.80, it was necessary to recruit 124 participants.

Measures:

Demographic Information

Each participant filled out a demographics questionnaire. This questionnaire assessed the participants' age, ethnicity, relationship status, height and weight (to measure BMI), and how often they go to gym per week in addition to the specific exercise types they participate in.

Self-Esteem

To measure self-esteem, participants were given the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). The RSES is a 10-item questionnaire that assesses trait self-esteem. For the RSES, participants respond to each item on a 4-point Likert scale; zero indicates that they strongly disagree with the statement and three indicated that they strongly agree. An example of the statements that participants respond to is, "On the whole, I am satisfied with myself." The scale is widely used with college women (Sinclair, Blais, Sandberg, Bistis, &

LoCicero, 2010; Robins, Hendin, & Trzesniewski, 2001; Twenge & Campbell, 2001; Wasylkiw et al, 2012). In a study examining the RSES, Cronbach's Alpha ranges were .88 and .90 (Robins, Hendin, & Trzenisewski, 2001). In a study conducted to validate the RSES, Sinclair et al., (2010) noted that the scale had adequate construct validity (Cronbach alpha of .91 for the overall sample). Although the authors note that the discriminant validity for the scale is not ideal, the questionnaire is the most commonly used and accepted self-esteem scale used for research (Sinclair et al., 2010). Furthermore, the RSES was utilized in the study by Wasilkiw et al., (2011) of which this study is comparing regression analyses in order to validate their previous study. In the current study, Cronbach's alpha for the RSES was ($\alpha = .89$). The mean score on the RSES in this sample, $M = 20.10$, $SD = 4.97$ is similar to that of many other samples of young women ($M = 19.82$, $SD = 4.73$; Mosewich, Kowalski, Sabiston, Sedgwick, & Tracy, 2011).

Self-Compassion

To measure self-compassion, participants were given the 26-item, self-report questionnaire developed by Neff (2003), the Self-Compassion Scale (SCS). This 26-item self-report scale consists of six different factors, such as the a) self-kindness subscale, b) self-judgment subscale, c) common humanity subscale, d) isolation subscale, e) mindfulness subscale, and f) the over-identification subscale. The scale is a 5-point Likert scale, where selecting 1 indicates almost never, and 5 indicates almost always. The scale has promising psychometrics. For instance the items are decently inter-correlated (Neff, 2003a). Furthermore the scale has concurrent validity (e.g. correlates with social connectedness), convergent validity (e.g., correlates with therapist's ratings) and discriminant validity (e.g. there is no correlation between the SCS and social desirability; Neff, 2003a; Neff, Kirkpatrick, et al., 2007). The SCS has a retest reliability of $\alpha = .93$ (Neff, 2003a). The SCS is widely used in research analyzing

self-compassion and the original scale developed by the lead researcher in self-compassion (Neff, 2003). In the current study it also had adequate construct validity with an Cronbach's alpha of ($\alpha = .88$).

Body Image and Body Dissatisfaction

In order to understand participants' perceptions of their bodies and body image, three short scales were given in order to examine participants' levels of trait, i.e. stable body dissatisfaction (BSQ, BES, BAS). The three body dissatisfaction scales looking at trait body dissatisfaction were used since they were given to participants in the study by Wasyliw and colleagues (2012) to examine body dissatisfaction and self-compassion. This enables reliable replication of the findings by Wasyliw and colleagues. One body image scale measuring state (situational) body dissatisfaction was also given to participants to fill out in order to measure changes in body image throughout the experimental portion of the study.

Body Shape Questionnaire

The Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper, & Fairburn, 1987) is a well-known and widely used questionnaire focusing on a person's body preoccupation. To shorten the length of the study (given the numerous assessments), the 16-item version of the scale (BSQ-16; Evans, & Dolan, 1993) was used. Participants rated the frequency of certain feelings or behaviors over a four-week period on a 6-point Likert scale. Selecting one on the scale indicates that a person never experienced what the question asks and they feel they never feel that way; choosing six indicates they feel that way always. Evans and Dolan (1993) reported good internal consistency with a Cronbach's alpha of .87. In another study, Wasyliw and colleagues (2012) the Cronbach's alpha that was slightly higher, ($\alpha = .94$). For the current study,

the BSQ showed good internal consistency, ($\alpha = .92$). Higher scores indicated greater dissatisfaction with one's body shape.

Body Esteem Scale

Another scale that was used in the current study was the Weight-Concern Scale of the *Body Esteem Scale* (BES, Franzoi & Shield, 1984). This section of the scale assesses one's attitudes about certain body parts and weight. Usually, the scale is a 5-point Likert-scale, where the selection of 1 indicates that one has strong negative feelings in relation to the body part or weight and 5 indicates having strong positive feelings for that body part. Higher scores typically indicate greater positive feelings about one's body weight and body parts, however in examining the moderation between self-compassion/self-esteem and the factors of thin ideal internalization, the BES was reverse coded so that higher scores indicated greater weight concern. The scale appears to be internally consistent, ($\alpha = .80$; Franzoi & Shields, 1984) and had a retest correlation of $r = .81$ over 3 months (Franzoi, 1994). For the current sample, the weight concern scale of the BES was noted to have adequate internal consistency as well, ($\alpha = .79$).

Body Appreciation Scale

The *Body Appreciation Scale* was included in order to understand the potential relationship with self-compassion and greater appreciation and acceptance of one's body (Avalos, Tylka, & Wood-Barcalow, 2005). This scale is a 13-item self-report scale assessing one's positive views towards one's body. The scale ranges from 1 (never) to 5 (always) where the items are averaged, and a higher score indicates greater body appreciation. For this study, the 13 items were just added to reflect a total score. The psychometric properties are promising and the scale has a Cronbach's alpha ranging from .91 to .94 (Avalos et al., 2005). Retest reliability over three weeks is also fairly higher ($r = .90$). It may be interesting to look at body appreciation in

contrast with body dissatisfaction in that there may be differences between self-compassion as a buffer against body dissatisfaction or as a feature associated with greater acceptance of the self. For this sample, internal consistency was good, ($\alpha = .93$).

State Body Dissatisfaction

State body dissatisfaction/body image was measured using the Body Image States Scale (BISS; Cash, Fleming, Alidogan et al, 2010). This scale is a 6 question, 9-point bipolar, Likert-scale that examines females and males body image in the current moment. It specifically looks at one's dissatisfaction-satisfaction with one's overall physical appearance, dissatisfaction-satisfaction with one's body size and shape, and dissatisfaction-satisfaction with one's weight. The scale also examines feelings of physical attractiveness-unattractiveness, current feelings about one's looks relative to how one usually feels, and evaluation of one's appearance relative to how the average person looks. Three items are reverse scored. Higher scores indicate lower state body dissatisfaction. The BISS in its initial validation study had an internal consistency of .77 for women (Cash et al., 2012). Although it has a temporal stability of .69 over the course of 2-3 weeks participants were given the BISS on the same day and the scale should be less variable. For this sample, the baseline BISS scale had a Cronbach's alpha of ($\alpha = .76$). This scale was provided four times. See Figure 1 for greater details on each BISS given.

Thin Ideal Internalization

Another factor highly related to body dissatisfaction, *thin ideal internalization*, was measured by the *Sociocultural Attitudes Towards Appearance Subscales* (SATAQ-3; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004). This scale has 4 subscales: General Internalization, Pressures, Information, and Athlete Internalization. The Information Scale relates to how participants look to media for information about their appearance while the Pressures

scale measures whether the media influences people to change their appearance. The other two subscales, Internalization-General and Internalization-Athletic assess the amount of acceptance i.e. internalization of either the thin model ideal or how athletes should specifically look like respectively (Forbes, Jobe, & Revak, 2006). This scale is a 30-item scale with a high Cronbach's Alpha of $\alpha = .96$. For the current study, Cronbach's alpha was, ($\alpha = .94$).

Procedure

Participants were recruited from psychology classes at American University or by word-of-mouth. The study was conducted in two parts. Part I was an online survey and informed consent provided through Qualtrics. Participants could fill out the Part I surveys on their personal computer, at their own leisure, as long as it was 3 to 5 days prior to the experimental part of the study. Researchers had participants fill out the surveys a few days earlier to prevent any recall biases in the experimental session, (Part II). For Part 1, the Qualtrics questionnaire was given in the same order to each participant. Each participant filled out the RSES, BISS 0, SCS, BSQ, BES, BAS, and SATAQ respectively. The surveys provided to all participants in the same order since Wasylkiw et al. (2012) who provided all of the same surveys to their participants, with the exception of the SATAQ, did not find any difference in body image scores due the order in which surveys were provided.

For Part II, participants came to the lab and completed another informed consent. Participants responded to the experimental portion of the study on a Dell desktop computer using Survey Monkey questionnaires. Participants were randomly assigned to one of four conditions based on when they contacted the researcher to participate in the study. The four conditions include three self-compassion induction conditions: Self-Kindness (SK), Common Humanity (CH), Mindfulness (M), and a Control condition (C). After completing the informed consent

form, participants completed the first BISS (BISS 1) to assess participants' baseline body image dissatisfaction.

After this initial BISS 1, participants participated in the negative body image induction. During this induction, participants were instructed to write about a body part or parts that they often compared with other women and that they do not feel satisfied with for five minutes. If the women finished before the timer went off they were instructed to reread what they had written or try to elaborate on the question in order to maintain consistency in methodology. After this induction participants were again asked to fill out a second BISS (BISS 2; post negative body image induction).

The next part of the study was the self-compassion induction, that as mentioned earlier was inspired by the methodology used by Leary, Tate, Adams, Allen, and Hancock (2007) in their study on self-compassion. Essentially the authors utilized a mood induction to assess differences in both trait self-compassion and induced self-compassion and self-esteem. Leary et al (2007) noted that trait self-compassion did not relate to improved mood, however, induced self-compassion was related to lower negative affect among participants in the self-compassion condition.

The methods for each induction are described below, however each participant had 5 minutes to write a response to the self-compassion or control prompt they were given. While Leary et al. (2007) did not specify timing for their conditions, this length of time was selected because it should provide enough time for consideration of each point without giving too much extra time for participants to ruminate about images or get bored.

Self-Kindness Induction (SK): Participants in this condition were asked to think and write about their dissatisfaction with their body and what they wrote about in the body image

induction. The participants were asked to think about the situation in an empathetic manner and imagine how they would react if a friend explained experiencing the same feelings. They were instructed to write a letter to themselves as if they were writing a letter to a friend who had experienced a similar situation. The prompt stated “Think about what you would say to a friend if they described being in the same situation as you have just written about. What would you say to her? Please write a letter of kindness to yourself about how as you might to a friend.”

Common Humanity Induction (CH): For this induction, participants were asked to think of the situation and write about how other women may experience similar feelings and how they may feel. The participants were instructed to “Write about the ways that other women may compare their bodies to other women in this situations and perhaps others like this. Is this common for many women?” This was expected to tap into the common humanity construct because it will enable participants to see that they are not the only ones dealing with such emotions and self-talk.

Mindfulness Induction (M): For this condition participants were asked to “Please write about the experience of thinking of your body and comparing it to others or how you may be dissatisfied with it as you did in the previous exercise and discuss in a neutral and non-judgmental manner what emotions and thoughts you had.” (Leary et al., 2007).

Control Condition: The participants were asked to describe the layout of their dorm room such as how it is set up, the color scheme of the room, and the location of it.

After the self-compassion inductions, participants were given the last BISS (BISS 3) to complete. This was a measure of their body image post self-compassion or control induction. See Figure 1 for the order of experimental induction and survey order for Part II of the study. Once participants completed the BISS 3, participants were debriefed and given numbers to the

counseling center and informative links about body image in case they became dissatisfied with their bodies and experience discomfort, however none expressed any discomfort and most expressed interest in learning more about the purposes of the study.

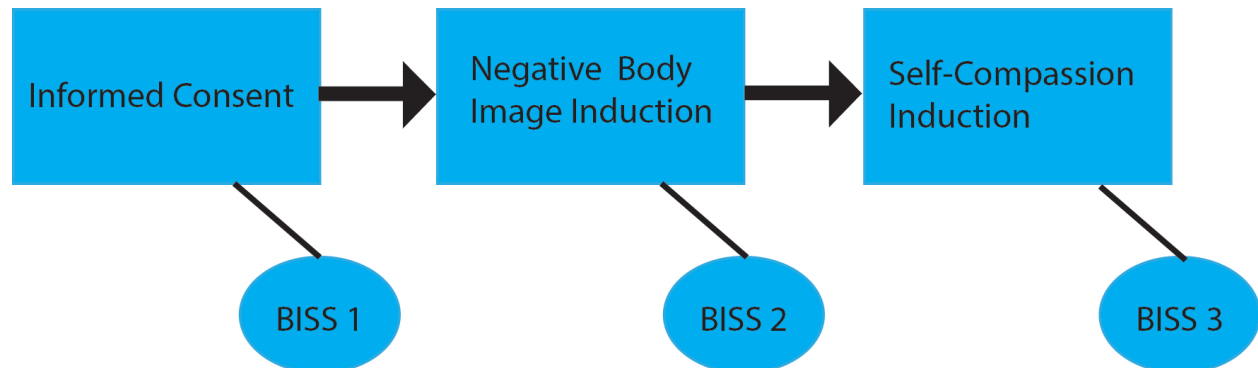


Figure 1: Order of Inductions for Part II

Analysis

For the analysis, descriptive statistics of all of the measures were assessed and demographic variables were analyzed in order to gain better understanding of the sample. This was also done to evaluate whether the sample was properly randomized such that each condition was similar on variables such as BMI, body image (BSQ, BES, BAS, SATAQ), self-compassion, and self-esteem. To do this, Chi Squares were conducted for differences in experimental group for ethnicity and relationships status. One-way ANOVAs were conducted to evaluate differences between the experimental groups for age, BMI, hours per week the participants worked out, BES, BAS, BSQ, and the SATAQ. Correlational analyses were also conducted between variables to understand how body image relates to self-compassion, self-esteem, BMI, and the amount someone works out.

In order to examine hypothesis one, and to evaluate whether self-compassion is a stronger predictor of body image (body preoccupation, weight concern, and body appreciation) even above self-esteem, hierarchical regressions were conducted. Wasylikiw et al. (2012) first entered self-esteem into the regression model and then later self-compassion to evaluate the predictive nature of self-esteem and self-compassion on body preoccupation, weight concern, and body appreciation. Similar analyses were conducted in order to replicate their findings.

To examine the second hypothesis of whether thin ideal internalization is related to self-compassion, correlations between scores on the SCS, body image measures (BSQ, BES, and the BAQ) and the SATAQ were conducted. Self-esteem (RSES) was also included in the model given previous research supporting that self-esteem also relates to thin ideal internalization and body dissatisfaction. Linear regressions were then conducted to understand ideal internalization (as measured by the SATAQ) would predict features of body image (i.e. body preoccupation, weight concern, and body appreciation) and whether self-compassion would moderate the relationship between thin ideal internalization and body image related features such as body preoccupation, weight concern, and body appreciation. Similar analyses were conducted examining self-esteem, thin ideal internalization, and the three body image factors.

For the third hypothesis, examining whether self-compassion inductions lead to greater change in body dissatisfaction than for the controls, a Repeated Measures ANOVA was conducted. Main effects of the condition (Self-Kindness, Common Humanity, Mindfulness, and Control), inductions (BISS 1, BISS 2, BISS3) as well as interactions between the groups were analyzed. Further analyses were planned to evaluate if one of the 3 self-compassion groups would have a different percent change from time two to time three than one another. Additionally, the responses to the negative body image inductions were analyzed for content to

understand whether there was potentially a trend in body regions or types of comparisons that participants made. The researcher read each statement and tallied the body regions and types of comparisons each participant made. Regression analyses and repeated measures ANOVAs were conducted to identify if changes in BISS were related to ethnicity, relationship status, BMI, hours a week a participant worked out, SCS, RSES and the three body image factors (BAS, BES, BSQ).

In order to understand whether manipulations worked, responses to the self-compassion and control inductions were coded by an independent rater, KL. KL read each self-compassion entry. For each entry, KL totaled how many Self-Kindness, Common Humanity, and Mindfulness sentences were written in addition to whether they were discussing their body in a negative or positive viewpoint. It was assumed that participants adhered to their specific induction question if they responded to their assigned prompt using sentences that exemplified their condition twice the amount of any other condition.

Expectations:

This study is one of the first to experimentally examine how inducing self-compassion could lead to less body dissatisfaction after negative body image has been induced. It is also the first study to break-down self-compassion into its three parts to see if inducing one of the three has greater benefits than one of the other factors in relation to body dissatisfaction. Therefore, this study is exploratory. In relations to the specific hypotheses in question, it is expected that self-compassion will predict greater variance in body preoccupation, weight concern, and weight concern over self-esteem. It is also predicted that greater trait self-compassion will relate to lower thin ideal internalization, although this finding may only be marginal. Not only would self-compassion and self-esteem predict the relationship between thin ideal internalization and body

image measures, but self-compassion and self-esteem may even moderate the relationship. It is also a possibility that all or some of the self-compassion groups will have lower body dissatisfaction than the control group. It was hypothesized that if there is a difference between the four experimental groups for body dissatisfaction, such that one or more of the induction groups improved to a greater degree (percent) than some of the others.

CHAPTER 3

RESULTS

Descriptive Statistics

A total of 135 participants completed at least one part of the two-part study. Four participants did not show up for the second, in-person session decreasing the participants to 131, five participant's data for the second part was not completed or lost due to an error in the Survey Monkey software further decreasing the participants to 126. These participants' data were removed from the analyses because the missing data was necessary for inclusion in analyses. Three other participant's data were removed because of missing or erroneous BMIs (i.e. a BMI of 50, which is improbable). In the end, 123 participants completed the initial online questionnaires and the in-person session, yielding an adequate participation rate and low dropout rate (3%).

Of the females whose data were included in this study, most of the females were 20 years of age ($N = 51$, 40.7%). The sample as a whole had a mean age of $M = 20.42$, $SD = 1.49$. The sample also included women who were 19 ($N = 30$, 24.4%), 21 years old ($N = 22$, 13.0%), 23 ($N = 3$, 2.4%), 24 ($N = 1$, 0.8%), 25 ($N = 1$, 0.8%), 26 ($N = 1$, 0.8%) and 29 ($N = 1$, 0.8%). Furthermore, the sample had participants from many different ethnicities with the majority being White/Caucasian ($N = 80$, 65%). Thirteen (10.6%) were African American, 9 (7.3%) were Asian, 11 (8.9%) were Hispanic, and 10 (8.1%) indicated they fit into a different ethnicity "other". Additionally 101 participants were single (82.1%), 21 had a serious significant other (17.1%), and one participant indicated they fit the other category (0.8%). Participants had a range of workout behaviors, such as running, walking, weight lifting, and organized sports. Per week, participants worked out for a range of zero to 22 hours, however most worked out for an average

of $M = 4.52$ ($SD = 4.21$). The participants who worked out for a greater proportion of time were student athletes. Each group had an equal number of student athletes. Additionally, hours per week that participants worked out did not correlate with any of the body image scales, thus researchers decided not to control for activity level in running analyses. See Table 1 and Table 2 below with the full descriptive data. Additionally participants had a mean BMI of $M = 22.10$ ($SD = 2.70$) indicating that the majority of participants were in the healthy BMI range as determined by the CDC (18.5-24.9; Hiza, Pratt, Mardis, & Anand, 2000).

Table 1: Participant Demographic Frequency Table: Ethnicity, Relationship Status

	Total	Self-Kindness	Common Humanity	Mindfulness	Control
	N (%)	N (%)	N (%)	N (%)	N (%)
# of participants	123	32 (26%)	32 (26%)	31 (25.2%)	28 (22.8%)
Ethnicity					
White	80 (65%)	22 (68.8%)	20 (62.5%)	20 (64.5%)	18 (64.3%)
African American	13 (10.6%)	1 (3.1%)	4 (12.5%)	5 (16.1%)	3 (10.7%)
Hispanic	11 (8.9%)	3 (9.4%)	1 (3.1%)	4 (9.7%)	4 (14.3%)
Asian	9 (7.3%)	3 (9.4%)	3 (9.4%)	2 (6.5%)	1 (3.6%)
Other	10 (8.1%)	3 (9.4%)	4 (12.5%)	1 (3.2%)	2 (7.1%)
Relationship status					
Single	101 (82.1%)	30 (93.8%)	22 (68.8%)	27 (87.0%)	22 (78.6%)
Significant Other	21 (17.1%)	2 (6.2%)	9 (28.1%)	4 (12.9 %)	6 (21.4%)
Married	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Other	1 (0.82%)	0 (0.0%)	1 (3.1%)	0 (0.0%)	0 (0.0%)

Table 2: Participant Demographic Table: Age, Hours of Working Out Per Week, and BMI

Demographics	Total	Self-Kindness	Common Humanity	Mindfulness	Control
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Age	20.42 (1.49)	20.78 (1.88)	20.75 (1.65)	19.97 (0.95)	20.11 (1.09)
Work Out (HPW)	4.46 (4.23)	3.75 (3.23)	4.02 (3.98)	5.94 (5.34)	4.16 (3.93)
Body Mass Index	22.10 (2.70)	22.11 (2.50)	22.12 (2.38)	21.93 (2.90)	22.25 (3.12)

Work Out HPW = Hours per week working out

Descriptive data for all of the body image, self-esteem, and self-compassion scales were evaluated. Participants scored a mean of $M = 20.10$ ($SD = 4.97$) on the RSES. Additionally, participants scored a mean of $M = 2.80$ ($SD = 0.58$) on the SCS. These scores were similar to findings by Wasylkiw et al. (2012). Among the body images scales, participants scored an average of $M = 27.08$ ($SD = 6.33$) on the weight concern section of the BES, $M = 45.66$ ($SD = 9.80$) on the BAS, and $M = 45.85$ ($SD = 15.91$) on the BSQ. For the SATAQ participants scored $M = 24.55$ ($SD = 7.52$) on the General Internalization factor of the SATAQ, $M = 15.37$ ($SD = 4.40$) on the Athlete Internalization subscale, $M = 20.98$ ($SD = 7.40$) on the Pressures subscale, and $M = 25.50$ ($SD = 8.53$) on the Information subscale. After conducting one-way ANOVAs, results indicated that there were no group differences between the self-kindness, common humanity, mindfulness, and control conditions on any of the scales. See Table 3 for means and standard deviations for each scale for each of the conditions and the total set of participants.

Table 3: Means and Standard Deviations for RSES, BAS, BES, BSQ, SATAQ IG, SATAQ IA, SATAQ P, SATAQ I

	Total		Self Kindness		Common Humanity		Mindfulness		Control	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
RSES	20.10	4.97	19.91	4.53	20.66	4.53	18.90	5.73	21.00	4.68
SCS	2.80	0.58	2.79	0.60	2.49	0.49	2.69	0.60	2.91	0.62
BAS	45.66	9.80	46.31	8.63	45.59	9.28	43.32	11.68	47.57	9.37
BES	27.08	6.33	26.75	5.98	27.66	6.37	27.74	6.00	27.64	6.17
BSQ	45.85	15.90	43.63	15.28	47.81	17.22	47.03	16.04	44.86	15.37
SATAQ	86.41	22.20	89.38	22.94	82.78	18.90	86.45	21.58	87.14	25.84
SATAQ IG	24.55	4.40	25.03	7.63	24.25	6.65	23.71	7.85	25.29	8.22
SATAQ IA	15.37	4.40	15.50	4.93	14.88	4.47	16.58	3.13	14.46	4.77
SATAQ P	20.98	7.40	21.47	7.78	21.16	6.59	20.58	7.65	20.68	7.92
SATAQ I	25.50	8.52	27.37	8.74	22.50	6.58	25.58	8.20	26.71	10.0

BMI= Body Mass Index, RSES = Rosenberg Self-Esteem Scale, SCS = Self-Compassion Scale, BAS = Body Appreciation Scale, BES = Body Esteem Scale (Weight Concern), BSQ = Body Shape Questionnaire, SATAQ = Sociocultural Attitudes Towards Appearance Subscales- Total, SATAQ IG = Sociocultural Attitudes Towards Appearance Subscales- Internalization General, SATAQ IA = Sociocultural Attitudes Towards Appearance Subscales- Internalization Athlete, SATAQ P = Sociocultural Attitudes Towards Appearance Subscales- Pressure, SATAQ I = Sociocultural Attitudes Towards Appearance Subscales- Information

Additionally, demographic analyses were done for each ethnic group to evaluate how each group may vary of factors such as relationships status, BMI, hours per week working out, self-compassion, self-esteem, and finally all four body image measures (BSQ, BES, BAS, SATAQ). See Table 4. Additionally, Table 5 has the means and standard deviations for all of the variables measured based on ethnicity. Unfortunately, the sample was not diverse enough to examine differences in body image among ethnic groups.

Table 4: Participant Demographic Frequency Table Broken Down by Ethnicity: Relationship Status, Age, Hours of Working Out Per Week, and BMI

	White	African American	Hispanic	Asian	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
# of participants	80 (65%)	13 (10.6%)	11 (8.9%)	9 (7.3%)	10 (8.1%)
Relationship status					
Single	66 (82.5%)	10 (76.9%)	8 (72.7%)	9 (100.0%)	8 (80.0%)
Significant Other	14 (17.5%)	3 (23.1%)	3 (27.3%)	0 (0.0 %)	1 (10.0%)
Married	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Other	0 (0.00%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (10.0%)
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Age	20.51 (8.54)	19.69 (0.63)	20.36 (0.50)	21.11 (1.97)	20.10 (0.99)
Work Out (HPW)	3.93 (3.03)	4.65 (4.23)	9.27 (8.54)	2.78 (2.39)	4.70 (4.16)
Body Mass Index	21.75 (2.40)	23.65 (3.30)	22.87 (3.55)	20.82 (2.42)	23.20 (2.46)

Work Out HPW = Hours per week working out

Table 5: Means and Standard Deviations for RSES, BAS, BES, BSQ, SATAQ IG, SATAQ IA, SATAQ P, SATAQ I by Ethnicity

	White		African American		Hispanic		Asian		Other	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
RSES	20.05	5.40	21.38	4.53	18.91	4.74	19.89	5.78	20.30	3.56
SCS	2.80	0.59	3.01	0.62	2.61	0.56	2.75	0.47	2.80	0.46
BAS	45.71	9.88	46.92	10.71	40.45	8.94	46.33	9.57	48.70	8.68
BES	27.14	6.46	26.08	5.72	28.27	5.89	27.56	6.78	26.20	6.97
BSQ	45.51	16.58	43.85	16.90	52.45	12.06	46.78	15.68	43.10	13.72
SATAQ	87.29	22.90	80.92	19.83	89.73	21.85	91.33	20.18	78.50	22.37
SATAQ IG	24.84	7.35	22.23	7.90	25.18	7.92	26.67	6.60	22.70	9.07
SATAQ IA	15.74	4.07	14.77	4.82	17.09	5.84	13.33	3.74	13.20	4.49
SATAQ P	21.18	7.53	20.15	6.90	22.27	7.39	21.44	7.00	18.70	8.22
SATAQ I	25.54	8.75	23.77	9.21	25.18	8.23	29.89	6.57	23.90	7.78

RSES = Rosenberg Self-Esteem Scale, SCS = Self-Compassion Scale, BAS = Body Appreciation Scale, BES = Body Esteem Scale (Weight Concern), BSQ = Body Shape Questionnaire, SATAQ = Sociocultural Attitudes Towards Appearance Subscales- Total, SATAQ IG = Sociocultural Attitudes Towards Appearance Subscales- Internalization General, SATAQ IA = Sociocultural Attitudes Towards Appearance Subscales- Internalization Athlete, SATAQ P = Sociocultural Attitudes Towards Appearance Subscales- Pressure, SATAQ I = Sociocultural Attitudes Towards Appearance Subscales- Information

Further analyses were conducted. For instance, see Table 6 for the means and standard deviations for all of the subscales of the SCS. Correlational analyses were also conducted to understand whether self-esteem, self-compassion, BMI, or any of the measures related to body image were correlated. BMI was only correlated with the body image measures but did not significantly relate to self-esteem and self-compassion. It appears that all other measures were correlated. See Table 7 for the correlations. Self-esteem and self-compassion were highly correlated, $r = .69, p < .001$. Additionally, thin ideal internalization (SATAQ) was negatively

correlated with self-esteem ($r = -.21, p < .001$), self-compassion ($r = -.28, p < .01$), and body appreciation ($r = -.47, p < .05$). The SATAQ was positively correlated with weight concern ($r = .35, p < .001$) and body preoccupation ($r = .71, p < .001$). Finally, correlations between body image factors and changes in BISS were conducted since body image scales have been theoretically linked and are most likely not independent of one another (See Table 8).

Table 6: Means and Standard Deviations for the Self-Compassion Scale

Subscale	Total		Self-Kindness		Common Humanity		Mindfulness		Control	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SCS Total	2.80	0.58	2.79	0.60	2.84	0.49	2.69	0.60	2.91	0.62
SK	2.84	0.86	2.82	0.75	2.86	0.85	2.72	0.95	2.99	0.90
SJ*	3.42	0.85	3.39	0.81	3.50	0.72	3.50	0.86	3.29	1.03
CH	3.00	0.98	2.82	1.05	3.05	0.95	2.77	0.93	3.09	1.01
I*	3.34	0.94	3.47	0.90	3.34	0.87	3.38	0.96	3.15	1.02
M	3.34	0.84	3.23	0.96	3.52	0.68	3.10	0.80	3.54	0.82
OI *	3.46	0.81	3.49	0.81	3.41	0.82	3.52	0.81	3.41	0.84

SCS Total= full scale, SK= Self-Kindness, SJ= Self Judgment, CH= Common Humanity, I = Isolation, M = Mindfulness, OI = Over Identification

*RS= Reverse scored

Table 7: Correlations for BMI, RSES, SCS, BES, BAS, BSQ, and SATAQ

Variable	1	2	3	4	5	6
1 BMI	1					
2 RSES	.00	1				
3 SCS	.02	.69***	1			
4 BES	.27**	-.48***	-.33***	1		
5 BAS	-.20*	.69***	.58***	-.76**	1	
6 BSQ	.23*	-.54**	-.43**	.71***	-.76***	1
7 SATAQ	.11	-.21***	-.28**	.35***	-.47**	.57**

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

Table 8: Correlations Between Trait Body Image Scales (BSQ, BES, and BAS) and Percent Change on BISS 1 to BISS 2 and BISS 2 to BISS 3

Variable	1	2	3	4	5
1 BSQ	1				
2 BES	.71**	1			
3 BAS	-.76**	-.76**	1		
4 % Change BISS 1 to 2	.32**	.23**	-.24**	1	
5 % Change BISS 2 to 3	-.096	-.057	.041	-.67**	1

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

Responses to Negative Body Image Induction

Research has indicated that women experience a wide arrange of body concerns about specific body parts, mostly in regions that considered “trouble areas” or regions where most women gain weight. For this study, participants wrote about regions of their body they did not like and were asked to compare their bodies to others. In order to better understand what these women were most ashamed of, the negative body image induction responses were analyzed. In

order to understand common themes that the women talked about during the study, the researcher evaluated the percentage of how many women discussed particular body parts in a negative manner.

It was not surprising given the existing research findings on thin ideal internalization and body image, that the largest amount of statements on a feature of body image was thinness and/or weight. More specifically, 67 participants (50%) wrote about being ashamed of their body weight and the desire to lose fat and weight (to be thinner). Additionally, participants were also highly ashamed of their stomach (N = 67, 50%). Many participants also wrote about their dissatisfaction with their hips (N = 57, 42.5%) and legs (N = 27, 20.1%). Participants also claimed that they compared themselves a lot to the media (N = 27, 20.1%) and to peers, such as family or friends (N = 31, 23.1%). Other popular body image concerns were the desire to be more toned/muscular (N = 26, 19.4%), and taller (N = 15, 11.2%). Other concerns that the participants wrote about were their arms (N = 19, 14.2%), hips (N = 13, 9.7%), and buttocks (N = 9, 6.7%). While most participants mentioned body regions that are typically perceived to be regions that women gain weight. Other things women complained about were their acne (N = 8, 6.0%) and hair face (N = 19, 14.2%). A few participants even wrote about wanting to gain weight (N = 2, 1.5%), and becoming curvier (N = 2, 1.5%).

Manipulation Check

KL tallied the portion of sentences for each response participants made to their specific self-compassion or control response. KL counted how many self-kindness, common humanity, mindfulness, and control statements were made in each response. Overall, participants adhered to the prompts given. In total, 114 of the 123 participants accurately responded to their prompts (92%). Of those who did not respond accurately to the prompts, most responded using a few

sentences that were related to their assigned condition but the proportion of statements for their condition were not double that of another condition. Among the conditions, all of the participants in the control condition responded appropriately to the prompt to describe their apartment (100%). Participants in the self-kindness and common humanity condition also responded accurately to the self-compassion prompt they were given (N= 31, 97% and N = 30, 94%) respectively. The mindfulness condition had the least compliance; 25 participants successfully responded with sentences appropriate to the mindfulness prompt (81%). This group also had a tendency to have more negative statements than the other conditions. However, removing the 9 erroneous participants did not significantly effect the data; thus, the participants were left in the analyses.

Main Analyses

Self-Compassion and Self-Esteem as Predictors of Body Dissatisfaction

Regression analyses were conducted to mimic the same analyses Wasylikiw and colleagues (2012) conducted. For the current study, self-esteem independently predicted BSQ scores. When self-compassion was added to the model, self-esteem remained a significant predictor of BSQ scores while self-compassion did not predict any unique variance for the BSQ. See Table 5. Furthermore, while self-esteem was a significant predictor of BES scores, adding self-compassion into the model did not add any more predictive value to the model while self-esteem still remained a predictor of BES scores. For the BAS, RSES scores predicted scores on the BES independently; when self-compassion was added, self-compassion also significantly explained some of the variance on BAS scores. See Table 9.

Table 9: Regression of Self-Esteem and Self-Compassion Predicting BSQ, BES, and BAS Scores

Criterion	Step	Predictor	B	SE _B	β	t-Values	R Square	ΔR^2
BSQ	Step 1						.289	.29**
		RSES	-1.72	0.25	-.54	-7.01**		
	Step 2						.294	.01
		RSES	-1.50	0.341	-.467	-4.39**		
		SCS	-2.79	2.943	-.10	-.95		
BES	Step 1						.23	.227**
		RSES	.61	0.102	.48	5.97**		
	Step 2						.23	.00
		RSES	.605	0.142	.48	4.262**		
		SCS	.034	1.224	.003	0.028		
BAS	Step 1						.475	.48**
		RSES	1.362	0.130	.689	10.47**		
	Step 2						.493	.02*
		RSES	1.108	0.178	.561	6.217**		
		SCS	3.170	1.536	.186	2.064*		

* $p < .05$, ** $p < .01$

Thin Ideal Internalization, Self-Esteem and Self-Compassion

Correlations and regressions were conducted to understand how the SATAQ may also relate to each body image scale. Pearson correlations were conducted between the body image measures (BSQ, BAS, BES) and the SATAQ (See Table 10 for full correlation table). It was noted that the BSQ was correlated with all of the subscales of the SATAQ and the total score, General Internalization ($r = .57, p < .01$), Athlete Internalization ($r = .35, p < .001$), Pressures ($r = .63, p < .001$), Information ($r = .26, p < .01$), and the total SATAQ ($r = .57, p < .001$). The BES was also correlated with most of the subscales of the SATAQ, General Internalization ($r = -.34, p < .001$), Athlete Internalization ($r = -.32, p < .001$), Pressures ($r = -.38, p < .001$), but not the Information subscale ($r = -.11, p > .05$). The BES was negatively correlated with the SATAQ total score ($r = -.35, p < .001$).

The BAS was also highly correlated with the subscales of the SATAQ: General Internalization ($r = -.48, p < .001$), Athlete Internalization ($r = -.29, p < .001$), Pressures ($r = -.50, p < .001$), Information ($r = -.20, p < .05$) and the full SATAQ scale ($r = -.47, p < .001$). Regressions were also performed to evaluate how the SATAQ would predict the body image scales. The SATAQ predicted scores on the BES ($\beta = -1.288, t(121) = -3.316, p = .001$), the BAS ($\beta = -0.867, t(121) = -2.644, p = .01$), and the BSQ ($\beta = 1.063, t(121) = 3.153, p < .01$).

Additionally, correlations were conducted between the factors of thin ideal internalization and self-compassion. See Table 8 for the detailed correlations. The total SCS was significantly negatively correlated with the SATAQ General Internalization, $r = -.25, p < .01$, Pressures, $r = -.32, p < .01$, and total SATAQ scale, $r = -.28, p < .01$. Self-kindness was negatively correlated with General Internalization, $r = -.22, p < .05$, Pressures, $r = -.25, p < .01$, and the total SATAQ scale, $r = -.27, p < .01$. Mindfulness was negatively correlated with Pressures, $r = -.19, p < .05$. Self judgment was similarly correlated with General Internalization, $r = .32, p < .01$, Pressures, $r = .25, p < .01$, the total SATAQ, $r = .30, p < .01$, and Information, $r = .22, p < .05$. Isolation was correlated with General Internalization, $r = .27, p < .01$, Pressures, $r = .33, p < .01$, and SATAQ total, $r = .28, p < .01$. Isolation is correlated to the same three factors, General Idealization ($r = .27, p < .01$), Pressures $r = .33, p < .01$, and SATAQ Total, $r = .28, p < .01$. Over-identification was only correlated with Pressures, $r = .39, p < .01$, and SATAQ total, $r = .26, p < .01$. The sum of the three positive SCS factors (SK, CH, and M) was negatively correlated with Pressures, $r = -.20, p < .05$ and the total SATAQ, $r = -.20, p < .05$. The negative factors of the SCS were positively correlated with General Internalization, $r = .36, p < .01$, Pressures, $r = .39, p < .01$, and the SATAQ Total, $r = .32, p < .01$. Athlete Internalization did not correlate with any of the factors of self-compassion.

Table 10: Correlations Between Thin Ideal Internalization and the Factors of Self- Compassion

Variable	SATAQ IG	SATAQ IA	SATAQ P	SATAQ I	SATAQTotal
SCS	-.25**	-.08	-.32**	-.17	-.28**
SCS SK	-.22*	-.18	-.25**	-.17	-.27**
SCS CH	-.06	-.05	-.07	-.11	-.09
SCS M	-.15	-.04	-.19*	-.13	-.17
SCS SJ	.32**	-.02	.25**	.22*	.30**
SCS I	.27**	.05	.33**	.12	.28**
SCS OI	.36	.06	.39**	.17	.26**
SCS Positive	-.17	-.11	-.20*	-.16	-.20*
SCS Negative	.36**	.06	.39**	.17	.32**

SCS = Self-Compassion Scale, SCS SK= Self kindness, SCS CH = Common Humanity, SCS M= Mindfulness, SCS SJ = Self judgment, SCS I = Isolation, SCS OI = Over-identification, SCS Positive= total of SK.CH and M, SCS Negative = Total of SJ,I, and OI, SATAQ= Sociocultural Attitudes Towards Appearance Subscales, SATAQIG= General Internalization, SATAQIA = Athlete Internalization, SATAQP = Pressure, SATAQI= Information

* $p < .05$, ** $p < .01$

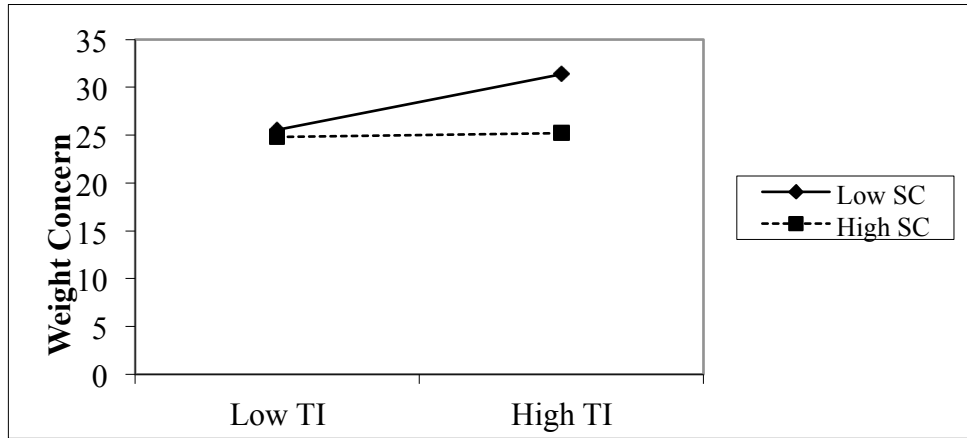
The current study noted that self-esteem predicted a range from about 20 to 50 percent of the variance for the BES, BAS, and BSQ. Since thin-ideal internalization has been noted to predict body dissatisfaction as well, moderation analyses (using linear regressions) were conducted to understand whether self-esteem would moderate the relationship between thin ideal internalization (as measured by the SATAQ) and any of the body image scales (BSQ, BAS, BES). Additionally self-compassion was also evaluated as a potential moderator in this relationship. See Appendix B (Table A to Table H) for full regression analyses.

Self-esteem did not moderate the relationship between the BES and the SATAQ. However, self-esteem ($b = -.523$, $SE_b = .104$, $\beta = -.410$, $t(122) = -5.051$, $p < .001$) and thin ideal internalization ($b = -.065$, $SE_b = .023$, $\beta = -.230$, $t(122) = 2.827$, $p < .01$) both significantly

predicted weight concern. Self-esteem negatively predicted weight concern, while self-esteem positively predicted it. Both predicted a significant portion of variance in weight concern scores, $R^2 = .275$, $F(1,121) = 22.814$, $p < .001$. Self-esteem ($b = 1.195$, $SE_b = .126$, $\beta = .605$, $t(122) = 9.487$, $p < .001$) and thin ideal internalization ($b = -.129$, $SE_b = .028$, $\beta = -.292$, $t(122) = -4.586$, $p < .001$) also predicted scores on the BAS; again, the RSES did not moderate this relationship although both carried a little over half the variance in body appreciation scores $R^2 = .554$, $F(1,121) = 74.408$, $p < .001$. Self-esteem ($b = -1.30$, $SE_b = .221$, $\beta = -.405$, $t(122) = -5.878$, $p < .001$) and the SATAQ ($b = .325$, $SE_b = .049$, $\beta = .454$, $t(122) = 6.56$, $p < .001$) both uniquely predicted scores on the BSQ. Similar to the results for the BAS and BES, the RSES did not moderate the relationship between the SATAQ and BSQ. Again, both predicted a significant amount of variance in body preoccupation $R^2 = .477$, $F(1,121) = 54.790$, $p < .001$.

Similar analyses were run for the SCS, SATAQ and the body image scales. The SATAQ ($b = .352$, $SE_b = .053$, $\beta = .491$, $t(122) = 6.68$, $p < .001$) and the SCS ($b = -7.927$, $SE_b = 2.033$, $\beta = -.287$, $t(122) = -3.90$, $p < .001$) both uniquely predicted scores on the BSQ and were responsible for a significant amount of variance on body preoccupation scores, $R^2 = .402$, $F(1,121) = 40.412$, $p < .001$. There was no moderation between the SCS and the SATAQ and BSQ. The SATAQ ($b = -.147$, $SE_b = .032$, $\beta = -.332$, $t(122) = -4.64$, $p < .001$) and the SCS ($b = 8.20$, $SE_b = 1.222$, $\beta = .484$, $t(122) = 6.71$, $p < .001$) also both uniquely predicted variance on the BAS and were responsible for nearly half of the variance on the body appreciation scale, $R^2 = .432$, $F(1,121) = 45.600$, $p < .001$. But self-compassion did not moderate the relationship between the BAS and the SATAQ. For the BES, the SATAQ ($b = .367$, $SE_b = .111$, $\beta = 1.288$, $t(122) = -3.316$, $p = .001$) predicted unique variance on the BES while SCS did not ($b = 6.148$, $SE_b = 3.478$, $\beta = .559$, $t(122) = -1.768$, $p > .05$). However, self-compassion (as measured by the SCS) moderated the

relationship between the SATAQ (thin ideal internalization) and the BES ($b = .106$, $SE_b = .040$, $\beta = -1.126$, $t(122) = 2.666$, $p < .01$). See Figure 2. While self-compassion and thin ideal internalization accounted for less variance in weight concern than body preoccupation and body appreciation, they still carried a significant amount of variance, $R^2 = .227$, $F(1,121) = 11.654$, $p < .001$.



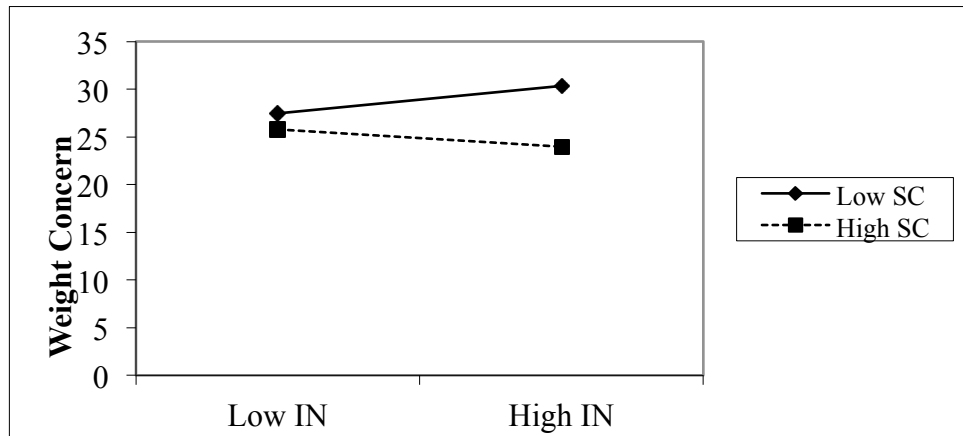
TI = Thin Ideal Internalization, SC = Self-compassion

Figure 2: Moderation of Self-Compassion for the Relationship Between Thin Ideal Internalization and Weight Concern

In order to further understand how self-compassion moderated the relationship between the SATAQ and the BES further regression analyses were conducted for the individual scales of the SATAQ (Internal-General, Pressures, and Information). Internal-athlete was omitted since the body image scales were not correlated with that subscale. The Pressures subscale and SCS were added into the regression model and then the interaction term was added at the next step. The Pressures subscale was positively related to weight concern ($b = .262$, $SE_b = .074$, $\beta = .307$, $t(122) = 3.538$, $p < .001$). The SCS negatively predicted weight concern ($b = -2.550$, $SE_b = .950$, $\beta = -.232$, $t(122) = -2.676$, $p < .01$). Self-compassion did not moderate the relationship between Pressures and weight concern, however the model accounted for a significant amount of variance in weight concern, $R^2 = .194$, $F(1,121) = 14.469$, $p < .001$.

Next General Internalization and SCS were entered into the regression model with the interaction term entered at the next step. The General Internalization subscale predicted weight concern ($b = .230$, $SE_b = .072$, $\beta = -.274$, $t(122) = 3.183$, $p < .01$) and the SCS negatively predicted weight concern ($b = -2.823$, $SE_b = .945$, $\beta = -.257$, $t(1,122) = -2.986$, $p < .01$). The interaction was not significant, therefore, the SCS did not moderate the relationship between the BES and General Internalization. Both General Internalization and the SCS were responsible for a significant amount of variance on weight concern, $R^2 = .180$, $F(1,121) = 13.130$, $p < .001$.

The final regression analyses were conducted where Information and SCS were added to the first step and the interaction term was added at the next step. Information predicted weight concern ($b = .705$, $SE_b = .269$, $\beta = .951$, $t(122) = 2.618$, $p > .01$). The SCS was not a unique predictor of scores on the BES ($b = -2.60$, $SE_b = 2.60$, $\beta = -.236$, $t(122) = 1.00$, $p < .001$). The interaction between self-compassion and Information was significant ($b = -.240$, $SE_b = .095$, $\beta = -.996$, $t(122) = -2.535$, $p < .05$) indicating the self-compassion moderated the relationship between information and weight concern. See Figure 3. Self-compassion and Information were responsible for a significant amount of the variance in weight concern scores, $R^2 = .16$, $F(1,121) = 7.484$, $p < .001$.



IN = Information, SC= Self-Compassion

Figure 3: Self-Compassion as a Moderator of the SATAQ Subscale: Information and Weight Concern

Can State Body Dissatisfaction be Ameliorated with Self-Compassion Inductions?

To evaluate the experimental portion of the study and whether inducing one of the three self-compassion conditions or the control condition would lead to improvements in participant's state body dissatisfaction, a repeated measures ANOVA was conducted. Since BISS 0 (3 to 5 days earlier) baseline scores were correlated with BISS 1 ($r = .701, p < .001$); only BISS 1 (baseline body dissatisfaction), BISS 2 (post negative body image induction), and BISS 3 (post self-compassion or control induction) were entered into SPSS. The dependent variables were the BISS 1, BISS 2, and BISS 3. The analyses conducted resulted in a main effect for induction. Participants' BISS scores changed throughout the experimental session $F(2, 238) = 22.70, p < .001$. See Table 11 for all three BISS means and standard deviations for each experimental condition.

Table 11: BISS Means and Standard Deviations Throughout the Experimental Session

	Self-Kindness	Common Humanity	Mindfulness	Control
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
BISS 0	5.53 (1.27)	5.72 (1.41)	5.16 (1.38)	5.71 (1.25)
BISS 1	5.64 (1.12)	5.92 (1.35)	5.48 (1.15)	5.90 (1.04)
BISS 2	5.27 (1.29)	5.54 (1.68)	5.11 (1.26)	5.43 (1.22)
BISS 3	5.78 (1.38)	5.79 (1.53)	5.33 (1.32)	5.93 (0.93)

T-tests were conducted to further examine such changes. Participants BISS 2 scores ($M = 5.34$, $SD = 0.13$) were significantly lower than their BISS 1 scores ($M = 5.73$, $SD = 0.11$), $t(122) = -5.99$, $p < .001$. Additionally participant's scores were significantly higher at time 3 (post BISS 3) ($M = 5.71$, $SD = 0.12$) than they were at BISS 2 ($M = 5.73$, $SD = 0.11$), $t(122) = 5.28$, $p < .001$. There was no significant difference in BISS 1 ($M = 5.34$, $SD = 0.13$) compared to BISS 3 ($M = 5.71$, $SD = 0.12$), indicating that post self-compassion induction state body image mirrored that of their initial baseline state body image $t(122) = -.422$, $p > .05$.

In all conditions, participants' body image seems to return to baseline after all of the inductions. For instance, in the self-kindness group the BISS 3 ($M = 5.78$, $SD = 1.38$) was not significantly different from BISS 1 ($M = 5.63$, $SD = 1.11$), $t(32) = 1.37$, $p > .181$. For common humanity the BISS 3 ($M = 5.79$, $SD = 1.53$) was also not significantly different than their BISS 1 scores ($M = 5.92$, $SD = 1.36$), $t(32) = -0.91$, $p > .370$. The mindfulness group also had no significant differences between BISS 3 ($M = 5.33$, $SD = 1.32$) and BISS 1 ($M = 5.48$, $SD = 1.15$), $t(30) = -1.16$, $p > .255$. Finally there were also no differences in BISS 3 ($M = 5.93$, $SD = 0.93$) and BISS1 ($M = 5.90$, $SD = 1.04$), $t(28) = 0.28$, $p > .780$. This indicates in all conditions participants state body image returned to baseline.

Regression analyses were conducted to evaluate whether ethnicity, relationship status, or hours per week that the participants worked out would also relate to percent change on the BISS. Relationship status ($b = 1.980$, $SE_b = 1.50$, $\beta = .119$, $t(122) = 1.32$, $p > .189$) and hours per week that a participant works out ($b = 0.347$, $SE_b = .296$, $\beta = -.106$, $t(122) = -1.173$, $p > .05$), did not predict percent change from BISS 1 to BISS 2, but ethnicity ($b = -1.534$, $SE_b = .702$, $\beta = -.195$, $t(122) = -2.185$, $p < .05$) did. Further analyses of these potential differences are hard to conduct because of the small sample of African American, Asian American, and Hispanic women. However, further analyses were conducted to understand whether ethnicity would relate to main effects for induction or condition. In analyzing this relationship further when controlling for ethnicity for BISS 1 to BISS 2, the induction was still significant $F(1,118) = 4.361$, $p < .05$ while the relationship between ethnicity and condition was insignificant $F(3,118) = .115$, $p > .05$. BMI was also not predictive of changes from BISS 1 to BISS 2, ($b = .191$, $SE_b = .466$, $\beta = .037$, $t(122) = .409$, $p > .05$) and neither did trait self-compassion ($b = -3.655$, $SE_b = 2.162$, $\beta = -.152$, $t(122) = -1.691$, $p > .05$).

Ethnicity ($b = .646$, $SE_b = 1.06$, $\beta = .056$, $t(122) = .613$, $p > .05$), relationship status ($b = -.136$, $SE_b = 2.23$, $\beta = -.006$, $t(122) = -0.061$, $p > .05$), and hours per week that a participant worked out ($b = .216$, $SE_b = .439$, $\beta = .045$, $t(122) = .492$, $p > .05$) did not predict changes in BISS 2 to BISS 3 scores as well. Initial trait self-compassion ($b = 3.084$, $SE_b = 3.216$, $\beta = .087$, $t(122) = .959$, $p > .05$), self-esteem ($b = .409$, $SE_b = .373$, $\beta = .099$, $t(122) = 1.098$, $p > .05$), and BMI ($b = -.958$, $SE_b = .683$, $\beta = -.126$, $t(122) = -1.401$, $p > .05$) also did not predict changes from BISS 2 to BISS 3. Trait self-esteem did predict changes from BISS 2 to BISS 3, ($b = -.771$, $SE_b = .244$, $\beta = -.276$, $t(122) = -3.161$, $p < .01$). This relationship was further evaluated when analyses that looked at difference between BISS 1 to BISS 2 and BISS 2 to BISS 3 were conducted

controlling for the body image factors given that they are highly correlated with percent change from BISS 1 to BISS 2 (refer to Table 8).

There was no main effect for condition (Self-Kindness, Common Humanity, Mindfulness, and Control) on BISS scores, $F(3,191) = .904, p > .05$. This indicates that among the four experimental groups, there was no difference among conditions during any of the BISS measurements. Furthermore, there was no interaction between condition and induction, $F(6,238) = 0.878, p > .05$.

While there is no significant difference among conditions, examining the plot of the repeated measures ANOVA points to differences in state body dissatisfaction at time 3 (after the self-compassion induction and BISS 3). It appears that Common Humanity and Mindfulness groups experience less change from BISS 2 to BISS 3 than the Self-Kindness and Control groups do. (See Figure 4 on page 58).

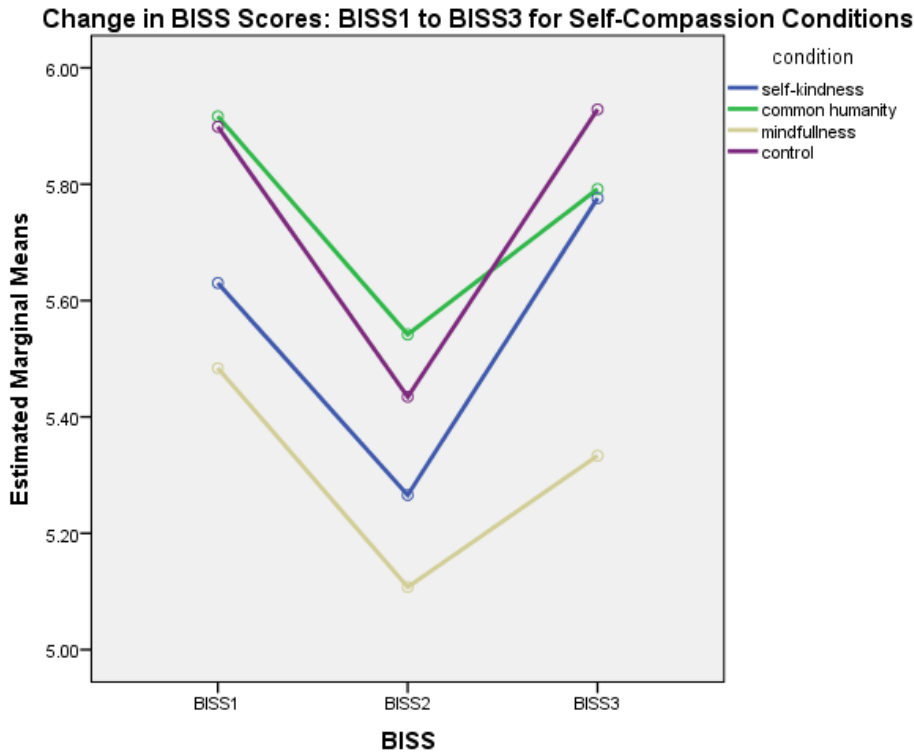


Figure 4: Change in BISS Scores by Condition

Further analyses were conducted to understand how any of the three trait body image measures would relate to changes from baseline to after the negative body image induction (BISS 1 to BISS 2), or from the negative body image induction to self-compassion induction (BISS 2 to BISS 3). To do so, repeated measures ANOVAs were conducted using BISS 1 to BISS 2 as the dependent variables while each body image factor was separately entered as a covariate (i.e. body preoccupation, weight concern, and body appreciation). When body preoccupation was controlled for, the main effect for indication was no longer significant $F(1,118) = 1.11, p > .05$ for changes from BISS 1 to BISS 2. There was also no main effect for condition $F(3,116) = 1.642, p > .05$. However, there was an interaction such that the induction and body preoccupation did relate to changes in BISS 1 to BISS 2 $F(1,116) = 10.522, p < .01$.

Next, weight concern was entered as a covariate to evaluate how controlling for weight concern would relate to changes in BISS 1 and BISS 2. Similar results were noted such that there was no main effect for induction alone, $F(1,116) = .459, p > .05$. There was no significant difference between conditions from BISS 1 to BISS 2, $F(3,116) = .889, p > .05$, nor was there an interaction between weight concern and condition, $F(3,118) = .152, p > .05$. However, like body preoccupation, there was an interaction such that the combination of induction and weight concern was significantly related to change in BISS 1 and BISS 2, $F(1,116) = 4.403, p < .05$.

The same analyses were conducted with body appreciation. When controlling for body appreciation, there was still a main effect for induction from BISS 1 to BISS 2, $F(1,116) = 11.95, p < .001$. Additionally, the induction and body appreciation together also related to changes in BISS 1 to BISS 2, $F(1,116) = 5.081, p < .05$. There was not a significant difference between conditions between BISS 1 and BISS 2, $F(3,116) = .780, p > .05$ nor was there an interaction between condition and body appreciation, $F(3,116) = .255, p > .05$.

Analyses were also conducted to understand how controlling for the trait body image factors: body preoccupation, weight concern, and body appreciation would relate to changes on the BISS 2 to BISS 3. When controlling for body preoccupation, the main effect for induction was no longer significant, $F(1,116) = 1.973, p > .05$. There was no difference in BISS 2 and BISS 3 for condition after controlling for body preoccupation, $F(3,116) = 1.448, p > .05$. There was also no interaction between induction and body preoccupation $F(1,116) = .116, p > .05$ and body preoccupation and condition, $F(3,116) = 1.242, p > .05$.

A similar trend occurred when weight concern was controlled for. There was no longer a main effect for induction, $F(1,116) = 1.557, p > .05$. There was also no main effect for condition, $F(3, 116) = .792, p < .05$. Additionally, there was no significance for interaction between

induction and weight concern, $F(1,116) = .002, p > .05$ or induction and condition, $F(3, 116) = 1.201, p > .05$. However, weight concern did relate to changes from the BISS 2 and BISS 3, $F(1,116) = 57.526, p < .001$.

To evaluate changes from the BISS 2 to BISS 3, body appreciation was controlled for. When controlling for body appreciation the main effect for induction was no longer significant, $F(1,116) = .700, p > .05$. Furthermore, there was no main effect for condition, $F(3,116) = .414, p > .05$. There was also no significant interactions; the interaction between induction and body appreciation, $F(1,116) = .071, p > .05$ and body appreciation and condition, $F(3,116) = 1.149, p > .05$ were not significant. There was a significant effect for body appreciation alone, $F(1,116) = 109.139, p < .001$ indicating that body appreciation predicted changes from BISS 2 to BISS 3.

Since self-esteem also predicted changes on the BISS from BISS 2 to BISS 3, a repeated measures ANOVA was conducted controlling for self-esteem. Main effects for induction approached significance, $F(1,116) = 2.996, p = .086$. There was no main effect for condition when self-esteem was controlled for, $F(3,116) = .149, p > .05$. There were also no interactions between induction and self-esteem $F(1,116) = .242, p > .05$ and induction and condition, $F(3,116) = 1.250, p > .05$. However, self-esteem did predict the change from BISS 2 to BISS 3, $F(1,116) = 77.918, p < .001$.

Since it appears that inductions may not have been as effective as intended, analyses were conducted to evaluate whether the changes that occurred among the different groups were related to different variables. To do this, correlations were conducted by condition for BMI and percent change from BISS 1 to BISS 2 and BISS 2 to BISS 3. It was noted that percent change from BISS 1 to BISS 2 was not correlated with BMI for the Self-Kindness condition ($r = -.002, p = .992$), Common Humanity ($r = -.072, p = .694$), Mindfulness ($r = .036, p = .847$), and Control ($r =$

= .211, $p = .281$). However, not all correlations between BMI and percent change from BISS 2 and BISS 3 were insignificant. While there was no significant relationship between the 3 self-compassion groups' percent change on the BISS 2 to BISS 3 and BMI: Self-Kindness ($r = .027$, $p = .884$), Common Humanity ($r = -.001$, $p = .996$), and Mindfulness ($r = -.165$, $p = .375$), the correlation between BMI and percent change from BISS 2 to BISS 3 was significant for those in the control group ($r = -.455$, $p < .05$).

CHAPTER 4

DISCUSSION

In order to further investigate the nature of self-compassion and how it may play a role in how people cope with body dissatisfaction, this study evaluated a number of hypotheses. The first was a replication of previous research by Wasylikiw et al (2012) since their study was one of the first to evaluate how self-compassion relates to body dissatisfaction. It was hypothesized that self-compassion predicts lower body preoccupation and weight concerns and greater body appreciation even when self-esteem is controlled for given the findings by Wasylikiw and her colleagues (2012). The second hypothesis evaluated in this study was whether thin ideal internalization would predict higher body preoccupation and weight concern as well as lower body appreciation. A secondary part of the hypothesis evaluated whether self-compassion or self-esteem would moderate the relationship between thin idealization and the body image factors.

The third and fourth hypothesis were more exploratory; this was the first study to attempt to induce self-compassion specifically to ameliorate body image. It was hypothesized that inducing self-compassion would improve state body dissatisfaction after a negative body image induction. Further analyses were planned to evaluate if there were differences in percent change from the negative body image induction to the self-compassion induction among the experimental (self-compassion) groups.

Self-Compassion and Self-Esteem as Predictors of Body Image

The first hypothesis that self-compassion would predict lower body dissatisfaction even when controlling for self-esteem, was not supported. Wasylikiw et al. (2012) noted that self-compassion was a unique predictor for less perseveration about one's body (BSQ), lower weight

concern (BES), and greater appreciation for one's body (BAS) even when self-esteem is also included in the model. The current study noted very different results. In the current study, self-compassion negatively predicted body preoccupation such that higher self-compassion related to less body preoccupation independently. Higher self-esteem also uniquely predicted lower body preoccupation. To assess whether self-compassion would predict greater variance in body preoccupation than self-esteem, self-esteem and self-compassion were entered into the regression model together. The current study found that self-esteem still predicted body preoccupation and carried most of the variance; self-compassion was no longer independently predictive of body preoccupation.

Similarly, weight concern as measured by the BES was also significantly predicted by self-compassion and self-esteem independently for the participants in the sample. It appears that having higher self-esteem and/or higher self-compassion related to lower weight concern. When self-esteem and self-compassion were both added to the model, self-compassion no longer uniquely predicted less weight concern while self-esteem remained a significant predictor. This contradicts the findings from Wasylikiw et al. (2012) that self-compassion is a unique predictor of weight concern beyond self-esteem.

In the current study, self-compassion and self-esteem both predicted variance in body appreciation, as measured by the BAS uniquely. When both self-esteem and self-compassion were added to the regression model, self-esteem and self-compassion both significantly predicted body appreciation. These findings indicate that a person's degree of self-compassion and their level of self-esteem both predict appreciation for one's body uniquely. While the findings in the current study were divergent from the Wasylikiw et al (2012) study for the BES and BSQ, it appears that the findings that body appreciation is predicted by self-compassion and self-esteem

are less contradictory to the findings by Wasylikiw and her colleagues (2012) than the other scales.

These findings are intriguing since the same scales were utilized in both studies and the data in both studies seem to be similar. The means and standard deviations of the scales were statistically the same in both studies (within one standard deviation of each other). In the current study self-esteem was responsible for explaining more of the variance in women's body preoccupation and weight concern while in the study conducted by Wasylikiw et al. (2012) self-compassion carried unique variance above self-esteem for all the scales.

It is unclear as to why this could have occurred. Both studies were conducted on college age women participating in research for psychological research credit for classes. The current study was conducted at university in the United States, while the other was conducted in Canada. The difference in variance explained in Wasylikiw and her colleague's sample (2012) was most likely not due to differences in country that the study was performed. These differences may indicate that participants in the current sample were more likely to be more worried about how others perceived them and/or that they were more apt to compare themselves with other women, which theoretically relates more to self-esteem than self-compassion. It would be interesting to have been able to measure social comparison or contingent self-worth based on the participants' body dissatisfaction.

Most studies have also indicated that self-compassion predicts more of the variance on many factors over self-esteem (e.g. Neff, Rude, & Kirkpatrick, 2007), with the exception of the study conducted by Mosewich et al. (2011) where self-compassion did not account for unique variance beyond self-esteem for social physique anxiety, a related body image construct. The researchers did note that self-compassion predicted unique variance in guilt and shame.

Mosewich et al. (2011) proposed that self-compassion and self-esteem may play a different role for self-evaluative thoughts and behaviors. Mosewich et al. (2011) claimed that this difference may relate to differences in one's behavior and thoughts.

The findings that self-compassion carries additional variance beyond self-esteem on body appreciation may indicate that possessing self-compassion allows the person to appreciate the things their body does for them beyond any flaw that it may possess, in addition to finding their bodies to be of equal or better value than their peers (Albertson, Neff, & Dill-Shackleford). Perhaps self-compassion does not explain greater variance in body preoccupation or weight concern over self-esteem because both factors are so closely correlated. It may be that the same protective factors of self-esteem work for self-compassion. It may also be that since body preoccupation and weight concern are negative factors of body image while body appreciation is a positive factor of body image, self-compassion may be more predictive of being able to get past one's flaws and enjoy one's body versus protecting those from negative feelings about one's body.

Previous research has also indicated that self-esteem relates to weight concern, which makes the finding that self-esteem is predictive of lower weight concern less surprising (Tiggerman & Stevens, 1998). Tiggerman and Stevens, (1998) examined four age groups of women, 18 to 29, 30 to 39, 40 to 49, and 50 to 59 years old. In the total sample, experiencing weight concern related to lower self-esteem. After Tiggerman and Stevens (1998) separated the participants into their age groups, they noted that this relationship only occurred for the older age groups. For the current sample, self-esteem was still a predictor of weight concern.

Even though both studies' results are contradictory, both self-compassion and self-esteem in this sample predicted a good proportion of variance in participant's body preoccupation (about

30%), body appreciation (about 48%), and weight concern (about 23%). Because both constructs are similar it may still be difficult to parse out what true differences the constructs possess. Self-esteem is based on achievement and comparison to others (Neff, 2009). It may be that women who feel better about themselves in general and in comparison to others are less likely to ruminate or spend time brooding over their bodies as previous research has noted (Connors & Casey, 2006; Swami, Airs, Chouhan, Leon, & Towell, 2009; Tiggerman, 2005). Having greater self-esteem may also predict better self-appraisals in general due to greater self-confidence. It may not be necessary to be accepting of flaws that protect women from the being preoccupied with their body or appreciate ones body. Finally, it could have been that narcissism or self-esteem which both relate to the tendency to try to be self-preserving than self-compassion lead to greater explanation in variance for the scales.

Self-Compassion as a Predictor of Thin Ideal Internalization

The second hypothesis specifically addressed the relationship between thin ideal internalization and body image. The extant research has indicated that thin ideal internalization is correlated with and even causes body dissatisfaction and disordered eating (Thompson & Stice, 2001). This study supported the relationship between thin ideal internalization and body image. In particular, thin ideal internalization was positively correlated with body preoccupation. Also, women who endorsed greater levels of thin ideal internalization were more likely to have weight concerns and perseverate about their bodies. They were also less likely to endorse appreciation for their body.

The factors of both self-compassion and thin ideal internalization were further broken down to compare what features of both self-compassion and thin ideal internalization relate. It appears that self-compassion and thin ideal internalization are negatively related. In particular it

seems that general self-compassion may protect women from comparing or yearning for their body to look like women who are lionized in the media. Additionally, having higher self-compassion may relate to less adherence to societal pressures about the thin ideal or to try to change their bodies in order to match this ideal.

Some of the individual factors of self-compassion also seem to relate to thin ideal internalization. For one, self-kindness acts similarly to the total self-compassion measure in that the ability to be kind to oneself and forgiving of flaws seems to relate to less acceptance of media's ideals about women's body and the desire or feelings that it is necessary to attain these ideals. Interestingly, the ability to acknowledge that other people may experience similar feelings and emotions in general does not relate to women's propensity to either accept or reject the thin ideal. This may relate to women's tendency to compare their bodies to the ideal more than similar others and normative discontent, in that most if not all women desire their bodies to look different to some degree (Engeln-Maddox, 2005). While the correlation was not a strong one, mindfulness may also be related to less pressure to change one's body to match society's desired body type.

It is intriguing that the negative (or opposite) factors of self-compassion were also correlated with thin ideal internalization. Women who are more self-judgmental appear to also endorse wanting to and actively trying to attain the thin ideal. Those who felt isolated and see their own troubles as individual struggles also tended to endorse greater desires to attain and actively achieve the thin ideal and women who over-identify and focus on their difficulties also tended to also desire and accept the thin or media's determined ideal as something necessary to attain. These correlations appeared to be stronger for the negative self-compassion factors than for the positive self-compassion factors which provide support that further research should be

conducted to understand how endorsing the negative factors of self-compassion may relate to thin ideal internalization.

Research has also indicated that self-esteem relates to thin ideal internalization and body image (Balcetis, Cole, Chelber, & Alicke, 2013; Thompson & Stice, 2001). While most of this research has conducted experimentally and evaluates whether someone who endorses the thin ideal will then have worse body satisfaction and lower self-esteem upon viewing models who represent the thin ideal, this study evaluated self-esteem as a possible moderator. Self-esteem and thin ideal internalization both uniquely predicted women's body preoccupation, weight concern, and body appreciation, but self-esteem did not aid in explaining the strength or direction of thin ideal internalization to any of the body image measures. It is interesting that self-esteem did not moderate the relationship between thin ideal internalization and weight concern since Prosovac et al. (2012) noted that self-media ideal discrepancy (or one's view of the extent that they don't match the thin idea) was a significant predictor of weight concern even beyond self-esteem. Additionally, when self-esteem was controlled for, self-media ideal discrepancy predicted weight concern independently in their study.

In another study Ross and Wade (2004) noted that in their sample of 111 female participants who were 18 to 25 years of age, self-esteem was also related to weight concern. More specifically the authors noted that externalized self-perception, i.e. considering how others' perceive themselves physically was significantly related with self-esteem. Self-esteem also predicted weight concern. When the authors controlled for self-esteem, externalized self-perception still predicted weight concern but the variance that was explained significantly increased and authors claimed that self-esteem partially mediated the relationship between externalized self-perception and weight concern (Ross & Wade, 2004). The findings in the

current study that self-esteem did not moderate the relationship between thin ideal internalization and weight concern were not expected; however, this study and the study by Ross and Wade (2004) used different scales measuring weight concern. It may also be that self-esteem is more protective of general discomfort of judgment of others rather than the desire to match a specific ideal (in this case the thin ideal).

In evaluating how self-compassion and thin ideal internalization relate to body preoccupation, weight concern, and body appreciation, individual regression analyses indicated that self-compassion and thin ideal internalization both carried a great deal of variance in explaining all three body image factors. While different levels of self-compassion did not further explain the relationship between thin ideal internalization and body preoccupation or body acceptance, self-compassion appears to moderate the relationship between thin ideal internalization and weight concern. It appears that self-compassion is a protective factor, which is predictive of a weaker relationship between thin ideal internalization and weight concern. For the women who were high in self-compassion, it did not matter if they were high or low on thin ideal internalization. Having self-compassion appears to be a protective factor against weight concern. Participants who were low in self-compassion and endorsed high thin ideal internalization seemed to be at greater risk for weight concern while those who had lower self-compassion and also low thin ideal internalization also expressed similar weight concern as those with high self-compassion. This makes sense, given previous research findings that those who are at greater risk for body dissatisfaction or other negative consequences are more apt to assimilate to the thin ideal and similar values (Thompson, van den Berg, Roehrig, Guarda & Heinberg, 2004).

Further analyses indicated that self-compassion specifically moderates the relationship between information (a feature of thin ideal internalization) which is defined by knowing about the ideals of society and being concerned with one's weight. This indicates that the women who were high in self-compassion, even if they were well aware of the thin ideal, seemed to have similar weight concern to those with high self-compassion and low thin ideal and even those with lower self-compassion and low thin ideal. The women who were low in self-compassion and higher in awareness of the thin ideal were at greatest risk for weight concern.

This finding is interesting because self-compassion did not seem to predict unique variance beyond self-esteem in weight concern. While self-compassion does not independently predict weight concern, it does moderate the relationship between thin ideal internalization and weight concern. Therefore self-compassion may be helpful to teach to those who have greater thin ideal internalization, while self-esteem in general may be a greater protective factor.

Does Inducing Self-Compassion Improve State Body Dissatisfaction?

Self-compassion inductions and training have been effective supplements to treatments in improving mood and disappointment with one's actions (Leary et al., 2007). Additionally previous findings have shown that self-compassion training (Alberston et al., 2014) and general mindfulness-based training (Delinsky et al., 2006; Pearson et al., 2012; Telch et al., 2001) are beneficial in improving body dissatisfaction. Because of these previous findings, the third hypothesis in this study examined whether inducing self-compassion would lead to decreased body dissatisfaction after a negative body image induction. It was hypothesized that inducing any of the factors of self-compassion (i.e. self-kindness, common humanity, and mindfulness) would be more effective at decreasing negative body image than a control condition where participants wrote about their apartments or dorm rooms.

It was interesting to note what participants were most likely to discuss during the negative body image induction. After doing a qualitative analysis of participants' responses to the negative body image inductions, it appears that most of the participants discussed problem areas that are commonly reported to be regions women are dissatisfied with. Half of the participants mentioned that they were dissatisfied with their thighs and almost half reported that they were dissatisfied with their hips. Additionally, the women also expressed that they were dissatisfied with their legs, arms, and breasts. Participants were also asked to discuss how they may compare themselves to others. Almost a quarter of the participants compared features of their body that they did not like in comparison to women in the media and their peers (i.e. their friends or classmates). The women also discussed how they hoped to be thinner than they were or that they believed that they were too heavy.

This was the first study to break down self-compassion to evaluate whether one of the factors was more effective at improving body dissatisfaction than any of the others. The hypothesis that one of the self-compassion factors would lead to a different change in state body dissatisfaction than among those in the control condition could not be supported. There were no differences among any of the experimental conditions (Self-kindness, Common Humanity, Mindfulness, or Control) on the percent change from the negative body image induction to post self-compassion induction. However, correlational analyses to evaluate whether there may have been differences in body dissatisfaction change related to the experimental condition or control condition point to the fact that the inductions may have eliminated the relationship between BMI and changes in body dissatisfaction for the experimental groups but not the control group. It may be that the induction was helpful in ameliorating body dissatisfaction regardless of BMI for the experimental conditions. The women in the control group, on the other hand, experienced

changes in body dissatisfaction that were related to their BMI. Those who were lower in BMI, and most likely “closer” to the thin ideal, had greater reductions in body dissatisfaction than those with higher BMIs in the control group. These findings are intriguing since negative body image is related to BMI (Kostanski & Gullone, 1998; Stice & Whitenton, 2002; Tiggerman, 2003).

Even though the experimental conditions did not differ in how they improved from the negative body image induction and after the self-compassion induction, participants’ body image did seem to change throughout the study. This supported the effectiveness of the manipulations. In general, participant’s body dissatisfaction increased after the negative body image induction and improved after the self-compassion/control induction. This indicates that all self-compassion inductions and even the control were effective in improving state body dissatisfaction. Participants adhered to the prompts they were given; therefore we can expect that these changes from the negative body image induction to the self-compassion inductions, are at least partially related to the inductions themselves.

Yet, this study also indicates that trait-based body image factors (i.e. body preoccupation, weight concern, and body appreciation) may have been more predictive of the changes in negative body image. For instance, in evaluating changes from baseline to the negative body image induction, after controlling for both body preoccupation and weight concern separately, the inductions alone did not appear to be related to this change, but rather the inductions and the level of either weight concern and body preoccupation. However, in controlling for body appreciation, the inductions alone were related to change in body dissatisfaction, while body appreciation and changes in state body dissatisfaction (changes in BISS scores) related to this change.

When analyses were conducted to evaluate how controlling for trait-based features of body image would relate to changes after the negative body image induction (BISS 2) and the self-compassion induction (BISS 3), it was noted that the trait-based features of body image were more predictive of changes in body dissatisfaction. Having lower body preoccupation or weight concern may have helped to predict greater changes in body dissatisfaction.

Previous research has shown positive results when inducing self-compassion (Leary et al. 2007). Perhaps inducing self-compassion in general instead of making the induction specific to body image would have been beneficial. It was also unclear about the amount of time that Leary et al. (2007) conducted their inductions; it may be that inductions would be more effective if provided for a longer or shorter duration or were even repeated. For instance, there may have been a dosage effect where self-compassion inductions were not provided for a long enough time for the induction to be helpful. The prompts that participants responded to were only 5 minutes each. It may be that this time period was not long enough to provide ample opportunity to induce self-compassion or negative body dissatisfaction even though the researcher considered the time to be long enough to produce state-based changes. However this may also mean that self-esteem is more effective in changing state body dissatisfaction (since results indicated that self-esteem predicted change in BISS 2 to BISS 3) and trait self-compassion was not, while self-compassion may be a trait that is beneficial in buffering against negative body image.

This lack of difference between groups could also mean that it was only necessary to have a distraction from one's state body dissatisfaction to experience similar change in body dissatisfaction. For instance, Nolen-Hoeksema and Morrow (1993) noted that in depressed participants who were separated into two conditions, (one told to ruminate or consider their emotions and the other told to write about the layout of their shopping center or the size of the

Golden Gate Bridge {distraction group}) that the distraction group had improvements in depression. The rumination group who thought about what their feelings became more depressed. While this sample was not depressed, they experienced greater body dissatisfaction, which has been correlated with negative mood (Harper & Tiggerman, 2008)

Despite the study's innovative nature, the study also possesses some limitations. The first was that the study did not implement a direct manipulation check to see if self-compassion was truly being induced during the time of the study. While a coder separately evaluated the degree to which the statements written matched the intended induction, it is difficult to know the degree to which participants really improved or gained greater self-compassion. Along similar lines, having another independent rater read through the statements written after the negative body image inductive would have supported the reliability of the manipulation check and provided a statistic that enable the reader to better assume that the rater's acceptance of the participants' compliance to the self-compassion inductions was successful. Participants overall were successful at adhering to the study instructions, as indicated by the tally the coder provided.

Furthermore, it would have been interesting to see if inducing one of the factors of self-compassion would promote increases in the other factors. For example, self-compassion may act additively. Additionally, it would have been interesting to see if a woman in the Self-Kindness condition would experience increases in Self-Kindness and also Common Humanity.

Another limitation of this study was that the inductions of the separate factors of self-compassion were not compared to the induction of all three at a time. Given the fact that the self-compassion factors are highly correlated the factors may have an additive effect and that inducing one factor is not sufficient enough to improve body dissatisfaction. Given timing

constraints and the amount of available participants, it was decided that there should only be four groups.

Measuring baseline state body dissatisfaction at the beginning of the experimental portion of the study may have also created a bit of a ceiling effect. Since participant's body dissatisfaction was measured at baseline and then negative body image was induced, one can expect that if the manipulation is successful the participants' body dissatisfaction would become more intensified. However, understanding the true nature of how body dissatisfaction changed after the self-compassion induction may be more difficult to parse out since improving body dissatisfaction above the baseline may be difficult if their body dissatisfaction was at a low level to begin with. The inductions were also temporally close to one another, therefore, it may also be difficult to really understand how much their body dissatisfaction after the self-compassion induction was influenced by the previous induction or just where they would normally revert to.

The sample size was also one participant below the required power. However, after adding one participant with scores similar to the average, the data still remained the unchanged. Therefore this limitation does not render this study unintelligible. It would be interesting to see if having a larger sample size would have provided a clearer understanding of potential differences in conditions, especially between the control and experimental conditions.

Overall, the findings are illuminating. It appears that self-esteem and self-esteem are both important factors that relate to body image factors such as body preoccupation, weight concern, and higher body appreciation. It is unclear whether self-esteem or self-compassion are more predictive of such body image factors given the contradictory results of this study and the one conducted by Wasylikiw et al. (2012) and research should further evaluate this. Thin ideal internalization was also added to the analyses and also predicted higher body preoccupation and

weight concern and lower body appreciation. While participant's self-esteem did not moderate the relationship between thin ideal internalization and any of the body image factors, self-compassion moderated the relationship between thin ideal internalization and weight concern. Lastly, while there were no group differences in improvement from the negative body image induction to the self-compassion inductions for any of the experimental groups (self-kindness, common humanity, mindfulness, and control), all groups increased to baseline.

Further research should examine how self-compassion may relate or moderate the relationship between other body image factors such as self-objectification or social comparison. It may also be interesting to develop continued studies comparing how inducing self-esteem or all of the self-compassion factors at once relates to changes after a negative body image induction similar to how Leary et al. (2007) have done to understand how self-esteem or self-compassion differ in improving mood after having participants consider failure. Research should also look at longitudinal effects of implementing self-compassion to ameliorate body image. It may be that such training requires repeated behavioral training or a longer period of time. Lastly, it would be interesting to understand how self-compassion may act as a buffer against negative body image. By switching this study's methodology such that self-compassion is induced prior to a negative body image induction, researchers may learn whether a factor or self-compassion (or self-compassion in general if compared to self-esteem) may prevent body dissatisfaction when women are presented with the opportunity to negatively evaluate their bodies.

APPENDIX A
DEMOGRAPHICS QUESTIONNAIRE

1. What year were you born?
2. What is your ethnicity?
 - a. White/Caucasian
 - b. African American
 - c. Hispanic
 - d. Asian
 - e. American Indian
 - f. Pacific Islander
 - g. Other
3. Please indicate your relationship status:
 - a. Single
 - b. Have a serious significant other
 - c. Married
 - d. Other
4. What is your height (in feet and inches, i.e. 5'4")?
5. What is your current weight (in pounds)?
6. How many hours do you work out a week?
7. What kind of physical activity do you participate in on a regular basis?

APPENDIX B

REGRESSION ANALYSES OF THIN IDEAL INTERNALIZATION FACTORS, BODY IMAGE, SELF-ESTEEM, AND SELF-COMPASSION

Table A: Self-Compassion X Total SATAQ Scale

Criterion	Step	Predictor	B	SE _B	β	t-Values	R Square	ΔR ²
BSQ	Step 1						.402	.402**
		SATAQ	.352	0.053	.491	6.676**		
		SCS	-7.927	2.033	-.287	-3.898**		
BES	Step 1						.181	.181**
	Step 2						.227	.046**
		SATAQ	.367	0.111	1.288	3.316**		
		SCS	6.148	3.478	.559	1.766		
		SATAQXSCS	-.106	0.040	-1.126	-2.666**		
BAS	Step 1						.432	.432**
		SATAQ	-.147	0.032	-.332	-4.645**		
		SCS	8.196	1.222	.481	6.708**		

* p < .05., ** p < .01

BSQ: Body Shape Questionnaire, BES: Body Esteem Scale (Weight Concern), BAS: Body Appreciation Scale, SATAQ Sociocultural Attitudes Towards Appearance Subscales-Total, SCS: Self-Compassion Scale

Table B: Self-Compassion X Pressures

Criterion	Step	Predictor	B	SE _B	β	t-Values	R Square	ΔR ²
BES	Step 1						.194	.194**
		Pressures	.262	0.074	.307	3.538**		
		SCS	-2.550	0.953	-.232	-2.676**		
BSQ	Step 2						.448	.448**
		Pressures	1.176	0.154	5.474	7.628**		
		SCS	-6.810	1.964	-.246	-3.433**		
BAS	Step 1						.442	.442**
		Pressures	-.468	.096	-.353	-4.898**		
		SCS	7.825	1.230	.459	6.364**		

* p < .05., ** p < .01

BES: Body Esteem Scale (Weight Concern), BSQ: Body Shape Questionnaire, BAS: Body Appreciation Scale, Pressures: Sociocultural Attitudes Towards Appearance Subscales-Pressures, SCS: Self-Compassion Scale

Table C: Self-Compassion X Information

Criterion	Step	Predictor	B	SE _B	β	t-Values	R Square	ΔR^2
BES	Step 1						.113	.113**
	Step 2						.159	.035*
		Info	.705	.269	.951	2.618 *		
		SCS	2.600	2.600	.236	1.00		
		Info X SCS	-.240	.095	-.996	-2.535*		
BSQ	Step 1						.218	.218**
		Info	.366	0.153	.196	2.393 *		
		SCS	-10.848	2.264	-.392	-4.792**		
BAS	Step 1						.324	.324**
		Info	-.128	0.086	-.112	-1.489		
		SCS	9.474	1.279	.556	7.406**		

* $p < .05$, ** $p < .01$

BES: Body Esteem Scale (Weight Concern), BSQ: Body Shape Questionnaire, BAS: Body Appreciation Scale, Info: Sociocultural Attitudes Towards Appearance Subscales-Information, SCS: Self-Compassion Scale

Table D: Self-Compassion X General Internalization

Criterion	Step	Predictor	B	SE _B	β	t-Values	R Square	ΔR^2
BES	Step 1						.180	.180**
		Internal G	.230	0.072	.274	3.183**		
		SCS	-2.823	0.945	-.257	-2.986 **		
BSQ	Step 2						.402	.402**
		Internal G	1.037	0.155	.490	6.674**		
		SCS	-8.027	2.000	-.290	-3.955**		
BAS	Step 1						.442	.442**
		Internal G	-.468	.096	-.353	-4.898**		
		SCS	1.195	.126	.605	9.487**		

* $p < .05$, ** $p < .01$

BES: Body Esteem Scale (Weight Concern), BSQ: Body Shape Questionnaire, BAS: Body Appreciation Scale, Internal G: Sociocultural Attitudes Towards Appearance Subscales- General Internalization, SCS: Self-Compassion Scale

Table E: Self-Esteem X Total SATAQ Scale

Criterion	Step	Predictor	B	SE _B	β	t-Values	R Square	ΔR^2
BES	Step 1	SATAQ	.065	0.23	.230	2.827**	.402	.402**
		RSES	-.532	0.104	-.410	-5.051**		
BSQ	Step 2	SATAQ	.325	0.049	.454	6.584**	.477	.477**
		RSES	-1.30	.221	-.405	-5.878**		
BAS	Step 1	SATAQ	-.129	.028	-.292	-4.586**	.554	.554**
		RSES	1.195	.126	.605	9.487**		

* $p < .05$., ** $p < .01$

BES: Body Esteem Scale (Weight Concern), BSQ: Body Shape Questionnaire, BAS: Body Appreciation Scale, SATAQ: Sociocultural Attitudes Towards Appearance Subscales-Total, RSES: Rosenberg Self-Esteem Scale

Table F: Self-Esteem X Pressures

Criterion	Step	Predictor	B	SE _B	β	t-Values	R Square	ΔR^2
BES	Step 1	Pressures	.215	0.070	.252	3.079*	.284	.284**
		RSES	-.501	0.104	-.393	-4.801**		
BSQ	Step 2	Pressures	1.086	0.553	.505	7.500 **	.516	.516**
		RSES	-1.186	.216	-.370	-5.490 **		
BAS	Step 1	Pressures	-.409	0.085	-.309	-4.811**	.560	.560**
		RSES	1.160	0.127	.587	9.150**		

* $p < .05$., ** $p < .01$

BES: Body Esteem Scale (Weight Concern), BSQ: Body Shape Questionnaire, BAS: Body Appreciation Scale, Pressures: Sociocultural Attitudes Towards Appearance Subscales- Pressures, RSES: Rosenberg Self-Esteem Scale

Table G: Self-Esteem X Information

Criterion	Step	Predictor	B	SE _B	β	t-Values	R Square	ΔR^2
BES	Step 1	Info	.038	.060	.051	.051	.230	.230**
		RSES	-.600	0.104	-.470	-5.826		
BSQ	Step 2	Info	.369	0.141	.198	2.620 *	.327	.327**
		RSES	-1.644	0.242	-.513	-6.794**		
BAS	Step 1	Info	-.139	0.076	-.121	-1.837	.490	.490**
		RSES	1.333	.130	.675	10.264**		

* $p < .05$, ** $p < .01$

BES: Body Esteem Scale (Weight Concern), BSQ: Body Shape Questionnaire, BAS: Body Appreciation Scale, Info: Sociocultural Attitudes Towards Appearance Subscales- Information, RSES: Rosenberg Self-Esteem Scale

Table H: Self-Esteem X General Internalization

Criterion	Step	Predictor	B	SE _B	β	t-Values	R Square	ΔR^2
BES	Step 1	Internal G	.189	0.068	.225	2.760 **	.273	.273**
		RSES	-.524	0.104	-.411	-5.056 **		
BSQ	Step 2	Internal G	.955	0.146	.452	6.529**	.475	.475**
		RSES	-1.301	0.222	-.406	-5.866**		
BAS	Step 1	Internal G	-.404	.082	-.310	-4.914**	.556	.556**
		RSES	1.184	.125	.599	9.501**		

* $p < .05$, ** $p < .01$

BES: Body Esteem Scale (Weight Concern), BSQ: Body Shape Questionnaire, BAS: Body Appreciation Scale, Internal G: Sociocultural Attitudes Towards Appearance Subscales-General Internalization, RSES: Rosenberg Self-Esteem Scale

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