Is Self-Consciousness a Moderator for Body Image and Disordered Eating in College Women?

By

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ABSTRACT

This research explores the role self-consciousness serves as a potential moderator for the relationship between body image and disordered eating. Participants (N = 50) were recruited using Middle Tennessee State University's SONA system, and they were all female. Results indicated that the regression model using public self-consciousness, self-classified weight, BMI, and shape concern produced a significant interaction effect. Results also indicated that the model using private self-consciousness, appearance orientation, BMI, and shape concern also produced a significant interaction, while the model using public self-consciousness, appearance orientation, BMI, and shape concern, produced a marginal effect. These findings suggest that public and private self-consciousness moderate body image and disordered eating for specific subscales. However, they do not necessarily moderate this relationship for the same subscales. Once the limitations are worked out, further research is conducted, and the literature is expanded, the area could possibly produce significant findings for the field of psychology.

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CHAPTER I: INTRODUCTION AND REVIEW OF LITERATURE

There is much research interest in the relationship between body image and disordered eating. For example, Jurasico, Perone, and Timko (2011) researched factors that could possibly serve as a moderator for a negative body image and disordered eating behaviors. Similarly, Bruin, Oudejans, Bakker, and Woertman (2011) wanted to better understand the disordered eating behaviors in athletes by using an approach that involves contextual body image. Moreover, previous literature by Levine and Smolak (2016) has focused on certain factors that can potentially prevent people from developing a negative body image and harmful eating behaviors. These are important studies. However, there is a need for research that focuses on the relationship between self-consciousness, body image, and disordered eating.

Disordered eating is very common, and it is frequently related to an individual's body image (McGuinness & Taylor, 2016). However, both of these concepts are complex and can be influenced by many factors. Therefore, looking at more potential relationships with these two variables will help structure interventions and treatments. Currently, there seems to be a gap in the literature that examines self-consciousness, body image, and disordered eating. In the present study, I will make the case that it is important to understand the effects self-consciousness can have on one's body and eating habits.

In the following review of the literature, I will be exploring previous research that has focused on how a variety of factors affect body image and disordered eating, but not how a facet of self-awareness such as self-consciousness specifically impacts these two

variables. Therefore, the potential impact of self-consciousness on these two variables is unclear.

Review of the Literature

Self-Awareness and Self-Consciousness

Morin (2011) suggests that self-awareness is the ability to be at the center of an individual's own attention. Therefore, self-awareness is particularly self-focused. The author notes that every aspect of one's self can be thought about during this process. Self-awareness involves reflecting on thoughts, feelings, goals, personality, triggers, future, past, goals, and anything else that is an aspect of themselves. People also process, recognize, and keep information about themselves.

Self-awareness makes understanding how individuals function much easier. Self-awareness is important because it is relevant to everyone. For this reason, it is important to recognize the different facets of self-awareness and the importance these facets may have in everyday life.

Self-Consciousness is one of the many facets of self-awareness. According to Rochat (2018), self-consciousness is quite important to the human experience, and it is the ability to perceive and be mindful of oneself in the eyes of the self and others.

As I was presenting a preliminary study of this research at a local conference, a question that attendees commonly asked was, "Why self-awareness and not self-consciousness?" Based on the two definitions provided one would assume that they are the same thing. While they are not the same, they are quite similar. Fenigstein, Scheier, and Buss (1975) vaguely mention that self-awareness is the umbrella term for many different concepts and self-consciousness is a part of self-awareness. This means that

self-consciousness is a facet of self-awareness. For my past research, I focused on self-awareness, but for this particular study, I am more interested in looking at self-consciousness alone.

According to Fenigstein et al., (1975) self-consciousness is divided into two parts. Having a more outward focus is public self-consciousness and having a more inward focus is private self-consciousness. Self-consciousness is generally based off of exposure to social situations when individuals begin to shift attention towards internal or external subjects. Usually, when people think of self-consciousness, they look at it in terms of how they are regarded by others. The authors mention that some people have high self-consciousness while others have low self-consciousness, with other people in between. It is important to note that self-consciousness is something that can potentially change over time but not drastically. The authors found that people with high public or private self-consciousness tend to obsess over everything about themselves. On the other end, people with low public or private self-consciousness tend not to always think about what they are doing and what other people think about it.

A study conducted by Yoshiwara and Tsuchiya (2019) details the mediating role self-consciousness plays in psychological competitiveness and focusing attitudes. Focusing is when athletes direct their attention inward to better concentrate on their sport. The participants for this study were 180 male and female student-athletes from two universities in Japan. For this study, the authors focused on public self-consciousness because they felt that focusing may negatively affect public self-consciousness. The authors also mentioned that possessing high levels of public self-consciousness could hurt psychological competitiveness. The hypothesis for this study was that focusing could

lead to a decrease in anxiety and fear of other people's opinions which would improve psychological competitive abilities such as concentration and mental stability. The results illustrated that public self-consciousness led to improved self-confidence and focusing attitudes in the student-athletes, all of these factors combined would help the student-athletes positively increase their competitive abilities – as the authors predicted. This is a helpful finding because although it deals with mediation, readers can recognize self-consciousness in a role that is different than maturation or personality.

Research by Kashubeck-West, Zeilman, and Deitz (2018) discusses the mediating effect that relationship satisfaction and body dissatisfaction have on self-consciousness and objectified body consciousness in times of physical intimacy. To adequately study this, the researchers used a sample of 217 bisexual women. Of these women, 77% of participants were in a relationship with a man and 23% of participants were in a relationship with a woman. As predicted, the authors found that higher levels of objectified body consciousness lead to a decrease in relationship satisfaction, which is related to increased self-consciousness in times of physical intimacy. Another finding from this study shows that higher levels of objectified body consciousness and body dissatisfaction are also related to increased self-consciousness in times of physical intimacy. It is also important to note that the participants who were romantically involved with men appeared to not be as satisfied with their relationships as the participants who were romantically involved with women. However, this did not change the fact that the participants romantically involved with women were not less self-conscious about their body image. This study is important because it outlines the potential relationship body image and self-consciousness have in this type of setting.

There is very limited research literature on self-consciousness, disordered eating, and body image. Braun, Park, and Gorin (2016) examined the relationship between self-compassion, body image, and disordered eating by completing a literature review that included 28 studies. The authors found that self-compassion is a "protective factor" against a negative body image and eating pathology based on multiple studies. In relation to the current study, this study is important because it looks at a factor, such as self-compassion, that can potentially decrease the effects that negative body image and disordered eating can have on an individual. Previous researchers have also looked at multiple factors that can affect body image and disordered eating. Kinasaul, Curtin, Bazzini, and Martz (2014) examined factors such as empowerment, feminism, and self-efficacy, whereas Costarelli, Demerzi, and Stamou (2009) focused on emotional intelligence. These studies are discussed in further detail in a later section.

In summary, the concept of self-consciousness has been studied in many different domains. Although self-consciousness as a whole already has a great deal of research dedicated to it, it is important to discover more information to better understand this construct in relation to many other subjects. If we can better understand the role self-consciousness plays in issues such as anxiety, depression, body image, eating disorders, and many others, there is potential to uncover more of the many mechanisms involved with these issues and get closer to the root causes of these issues in individuals.

Body Image

Body Image has been defined as “self-perceptions, cognitions, affect, and behaviors vis-a-vis one’s physical attributes” (Cash & Henry, 1995, p. 19). Grogan (2006) defines body image quite similarly, but also mentions that people base their levels

of attractiveness, estimations of size, and emotions on their body image. Grogan also discusses how body image research has been primarily focused on women for the past few decades. Research related to men and body image is beginning to become more prevalent than it has been in the past. Although Grogan makes a good point about body image affecting men as well, the current study will focus on women due to the abundance of literature. Returning to the previous definitions, body image is how people see and react to their outward appearance. This definition is important because it provides a clear context for an attribute that everyone possesses.

Although there is a clear definition of body image, not everyone defines this term as clearly as the previous authors. Researchers, such as Winter et al. (2018), have recognized that body image is a term that is often talked about in research literature, but it is not always clearly defined. For example, Becker, Verzijl, Kilpela, Wilfred, and Stewart (2019) studied body image, but no definition was mentioned. Instead, the authors discuss research related to negative body image. It is clear that the authors did not define body image because there is already a great deal of literature devoted to the topic. However, providing a clear definition for such an important topic would most likely be helpful to readers.

In addition, work by Winter et al. (2018) focused on finding the varying definitions that mental health practitioners may have for the body image term. The researchers administered a survey and asked 216 mental health practitioners a question about how they would personally define body image. The results conveyed that the mental health practitioners variously defined body image as physical appearance alone, a

personal ideal, feelings about the body, a comparison to social norms, or physical appearance in regard to mental health.

Moreover, Grabe and Hyde (2006) conducted a meta-analysis to compare the body images of women in the United States by ethnicity. The studies encompassing this literature have produced contradictory findings and seem to focus on primarily African American and Caucasian American women. The findings of this meta-analysis show that while there is not a large difference, Caucasian American women appear to have more body dissatisfaction than African American women. For comparisons between Caucasian American and Hispanic American, and Caucasian American and Asian American, women there is not much of a difference at all in terms of body dissatisfaction. This was the same for comparisons between African American and Asian American women. Hispanic American women seemed to be more dissatisfied with their bodies than African American women and there was once again no difference in body dissatisfaction between Asian American and Hispanic American women. The researchers found that there is not a major difference in body dissatisfaction in women who are Caucasian American and women who are non-Caucasian American, but it does depend on which ethnic comparisons are being made.

Similarly, a meta-analysis by Grabe, Hyde, and Ward (2008) works to explain the potential role the media plays concerning body image issues in women. Body dissatisfaction is an integral part of physical and mental health in women. Multiple factors have been pinpointed as the reason for body dissatisfaction, but the media's thin ideal seems to have the most prevalence. The authors believe that the media targeting women contains models who are quite thin, which presents an ideal that most people

cannot attain. Repeatedly seeing unnaturally thin models in the media leads women to believe that they also have to look that way. To properly study this, Grabe et al. (2008) investigated previous studies that used both experimental and correlational research. Analyses of experimental research concluded that a small amount of exposure to media that contains messages about the thin ideal generally causes short-term negative effects in a woman's body image. After analyzing correlational research, the authors discovered the trend that constant exposure to media boasting the thin ideal is often correlated with increased levels of negative body image issues.

In summary, the research on body image alone has yielded valuable information. This is a topic that is researched frequently, and it will continue to be explored far into the future. The information that has come from body image research has made understanding something that all people possess a bit easier. Studying body image alone will continue to be beneficial, so examining topics related to body image will only prove to be more helpful because it can provide more insight on the topic from different viewpoints.

Disordered Eating

Disordered eating involves unusual practices that are related to eating disorders. Characteristics of disordered eating are "restraint, emotional, disinhibited, binge, and night eating; weight, shape, and eating concerns; strict dieting; and controlling body weight and shape through inappropriate compensatory behaviours (i.e. purging)" (Quick & Byrd-Bredbenner, 2013, pp. 53-54).

Disordered eating affects individuals from all demographics. For example, in a study conducted by Goel, Burnette, and Mazzeo (2019), ethnic and racial differences

were investigated in college women to determine if the two factors made a difference in the association between disordered eating and parent-oriented perfectionism. The different domains of parent-oriented perfectionism used in this study were parental criticism and parental expectation. Participants (N = 1,173) completed a series of questionnaires to address the association between disordered eating and parent-oriented perfectionism. The different racial and ethnic groups included White, Latina, Asian/Hawaiian/Pacific Islander, Black, and Multiracial. The authors hypothesized that parent-oriented perfectionism would have a positive correlation with disordered eating for Asian/Hawaiian/Pacific Islander women and White women. The results showed parental expectation had a stronger association with disordered eating behaviors in Asian/Hawaiian/Pacific Islander women, while parental criticism appeared to be more closely related to disordered eating behaviors in Black women, for example. These findings highlight the role that people's cultures can have on disordered eating.

Additionally, authors, Fergus, Copp, Tabler, and Nagata (2019), were interested in studying the association between disordered eating and sexual risk in women. For this study, sexual risk was measured by looking at unprotected sex, sexual partners, sexually transmitted infections, and number of sexual partners. The researchers found that women who have a diagnosed eating disorder or display disordered eating behaviors were at an increased sexual risk in terms of unprotected sex and number of sexual partners. Also, there was an association between sexual risk and disordered eating.

Moreover, Puccio, Fuller-Tyszkiewicz, Ong, and Krug (2016) examined a major mental health construct such as depression and its relationship to disordered eating. A meta-analysis of 30 different studies determined that disordered eating and depression

both substantially predicted each other. In other words, these two variables share a bi-directional relationship. Some support was provided for the possibility of disordered eating posing as a risk factor for depression based on the research. According to the meta-analysis, depression could be caused by the inability to manage certain eating behaviors and maintain a specific physique. Depending on the individual, age could possibly play a large role in the relationship between disordered eating and depression. There are mixed results on the specific age at which this may begin, but this study shows that age may play a role.

In summary, there is extensive literature on the relationship that multiple factors may have with disordered eating. Although this area has been studied for years, researchers are still finding more information that is important for this topic. The more research that is completed, the closer individuals are to potentially reducing the prevalence of disordered eating.

Factors Known to Affect Body Image and Disordered Eating

There are many factors that affect body image and disordered eating. For example, work by Haworth-Hoeppner (2000) identifies the potential role family has on body image and disordered eating. As noted earlier, culture is important to the discussion of body image and eating disorders. However, the family can also play a large role. The author suggests that an individual's family members are at the core of the early development of eating disorders. Whether it is watching one's mother struggle with her weight, or being criticized for not looking a certain way, a person's family, combined with culture, could be the starting point for issues such as body image and disordered eating.

Similarly, a study by Thompson and Stice (2001) suggests that the media play a large role in body image and disordered eating. As noted earlier, it is very common to look at magazines, the internet, and commercials and see that a thin body type appears to be more favorable than any other body type. According to Thompson, Heinberg, Altabe, and Tantleff-Dunn (1999), appearance is very powerful in our culture. Thompson and Stice (2001) provide discussion on how this one factor is generally the basis for how women view themselves and others. Once this idea of having to be thin becomes internalized, it potentially causes body dissatisfaction and dieting behaviors in the women who are attempting to conform to the media's view.

Additionally, according to López-Guimerà, Levine, Sánchez-Carracedo, and Fauquet (2010), with mass media comes different types of content that do not always send the healthiest message to consumers. Among this content are advertisements boasting body size, the beauty ideal, weight control, and food. For this reason, Levine and Murnen (2009) argue that this type of content is a proponent of body dissatisfaction, which then leads to people having weight concerns and developing unhealthy eating patterns.

Also, Harper and Tiggemann (2007) researched the “thin ideal” in relation to the media. The media has made people think that to be beautiful an individual has to be skinny. According to Harper and Tiggemann, a lot of advertised women sport body images that are extremely difficult to attain. However, that is not the way everyone sees it. Instead of recognizing that the media's idea of the perfect body is hard to achieve and potentially unhealthy, individuals still strive to look like the women they see being advertised. This causes several problems. The authors note that women begin to feel bad

about themselves because they do not look like the media's portrayal of a beautiful woman.

Likewise, Costarelli et al. (2009) conducted research on disordered eating and how it is related to body image and emotional intelligence. In this study, the researchers used dimensions of emotional intelligence, including stress management, empathy, interpersonal relationships, emotional self-awareness, and happiness. Individuals with higher levels of emotional intelligence seem to have better mental health. Therefore, these researchers argued that if an individual is high in emotional intelligence, then this person is less likely than someone who is low in emotional intelligence and more preoccupied with being overweight to suffer from a disturbed body image and disordered eating.

Furthermore, Kinasaul et al. (2014) discuss factors such as self-efficacy, feminism, and empowerment concerning disordered eating behaviors and body image. These authors believe that there are preexisting norms about being thin that contribute to a negative body image, leading to disordered eating. The results show that having a feminist ideology did predict a positive body image, but not disordered eating. Unsurprisingly, self-efficacy turned out to be a predictor for a positive body image and decreased disordered eating behavior. This was even found to be true after controlling for empowerment and feminism. Therefore, it is possible that promoting self-efficacy can buffer the effects that negative body image and disordered eating behaviors can have on women in college.

Finally, recent research conducted by Walter and Yanko (2018) detail how dance impacts body image and can lead to the development of disordered eating behaviors.

Previous studies have shown that dancers are more at risk than athletes of other sports and non-athletes for the development of eating disorders. Dancing is a very intense sport and requires hours of daily practice. All of this practicing leads to a thinner body, but some dancers are still not satisfied with that. The pressure to remain thin is constant, and this leads to the development of disordered eating behaviors and eating disorders. Walter and Yanko found that body mass index significantly contributed to determining whether someone could have an eating disorder or not. Sports, in general, are a possible factor for body image and disordered eating, so coaches and athletes need to remain aware of the risks of developing an eating disorder.

In summary, there is a lot of research detailing the different factors that affect body image and disordered eating. Although we have already been made aware of multiple other factors important to body image and disordered eating, it is still beneficial to find as many potential causes as possible. There are still other elements that may be important.

What is a Moderation Effect?

As mentioned above, research has made us aware of many factors that are important to the body image and disordered eating literature, but there has not been much investigation of moderators of these two variables. Wu and Zumbo (2007) looked at how a moderator variable affects the power of a relationship between the independent variable and the dependent variable. The moderator variable can strengthen or weaken the relationship between the independent and dependent variables, and this situation is known as a moderation effect. This is because the third variable, the moderator, is potentially having a direct effect on the relationship between the other two variables.

Research by Kelly, Vimalakanthan, and Miller (2014) provides a good example of the use of a moderator variable. The authors studied if self-compassion moderates the preexisting relationship that body mass index (BMI) has with cycles of disordered eating and whether one can adapt to instances of a negative body image. This means that they are trying to see if self-compassion strengthens or weakens the relationship previously established between BMI, eating pathology, and adaptation to times a negative body image is present. The results of this study show that self-compassion does serve as a moderator for BMI, eating pathology, and body image flexibility. It is also important to note that if individuals put in the effort to treat themselves compassionately while going through tough times, there may be a greater chance at preventing disordered eating and the decreased body image that often comes with having a BMI on the high end of the scale.

Self-compassion involves being compassionate to oneself in times of struggle (Kelly et al., 2014). Self-awareness allows an individual to be at the center of one's own attention (Morin, 2011). Although these are different concepts, their definitions allow us to see that they are related. It seems as if in order to have self-compassion people have to focus on themselves. Of course, self-focused people are using self-awareness.

According to Wu and Zumbo (2007), moderation and mediation are both theories that help individuals comprehend relationships between variables. Both of these variables serve as a third variable that enhances the understanding of an independent and dependent variable. These two terms are often confused, but they do produce different results. As was stated above, a moderator is a third variable that can strengthen or weaken the association between an independent and dependent variable. A mediator is a third

variable that can potentially determine why an independent and dependent variable are related. Moderators and mediators can be very helpful when conducting research, but for the current study, I am not looking for an explanation as to why self-consciousness makes body image and disordered eating related. This would imply that body image and disordered eating are related because of self-consciousness, and that is not a statement I can make. I want to know whether self-consciousness makes the relationship between body image and disordered eating stronger or weaker. This would mean that self-consciousness is a potential moderator for the other two variables, and that is what I am aiming to find out. Therefore, I will use moderation, not mediation, for this study.

Preliminary Study

I conducted a preliminary study to determine whether this type of research would be a moderation analysis. In the preliminary study, the relationship between disordered eating, body image, and self-awareness was examined. The Disordered Eating Attitude Scale (DEAS) by Alvarenga, Scagliusi, and Philippi (2010) was used to measure disordered eating; however, only three of the subscales were used for this study. These included: Concerns About Food and Weight Gain, Restrictive and Compensatory Practices, and Idea of Normal Eating. These subscales were used because they were the most correlated with body image and self-awareness. The Body Shape Questionnaire (BSQ) by Cooper, Taylor, Cooper, and Fairburn (1987) was used to measure body image concern, and The Self-Consciousness Scale-Revised (SCS-R) by Scheier and Carver (1985) was used to measure self-awareness. Private Self-Consciousness, a subscale from the SCS-R, was the only subscale used for this study because it encompassed my definition of self-awareness the best. For this subscale, two groups were used: a low self-

awareness group and a high self-awareness group. There were 86 female participants recruited from the Middle Tennessee State University (MTSU) psychology research pool. All of the questionnaires were administered in-person in small groups that had around 1 to 6 individuals.

One of the hypotheses for this study was that high self-awareness is related to a negative body image and increased disordered eating behaviors. The other hypothesis was that low self-awareness is related to a positive body image and decreased disordered eating behaviors. I found that low self-awareness was potentially related to a more positive body image and decreased disordered eating behaviors as a result. This was apparent because the private self-consciousness subscale for the BSQ was negatively correlated with body image for the low self-awareness group. It also appeared that high self-awareness was potentially related to a more negative body image and increased disordered eating behaviors as a result. The private self-consciousness subscale for the BSQ was positively correlated with body image in the high self-awareness group. Thus, there was some indirect support for a moderation effect.

At the end of the study, it seemed like there were some consistencies with the data and the hypotheses. However, replacing some measures and conducting a full moderation analysis is required before I can determine if there is a significant self-awareness effect. Unfortunately, the DEAS did not end up being very reliable for this sample, so it is important to look into other measures of disordered eating before further research is conducted.

For the current study, I am interested in revising my previous research and look into using a different measure of disordered eating behavior, because the previous

measure was not very reliable for the sample. Since the prior study was a preliminary one, I have not yet gone in-depth with the analyses. However, for this study, I will be running a full moderation analysis to better test the hypotheses. Also, if my hypotheses are supported, then it would be worth conducting this study with other populations to make the results more generalizable (e.g., students at different colleges, college men, non-school population, athletes).

Statement of the Problem and Hypotheses

This project examined how self-consciousness affected the way people view their body, and how their eating behaviors were shaped as a result of this. Yu et al. (2018) argued that the differences between men and women regarding disordered eating depended on their behavior. It seems as if men and women were quite similar in regard to disordered eating frequency, but women were more likely to report instances of disordered eating. Based on the past research, I expected self-consciousness to moderate the relationship between body image and disordered eating for women more than men. For this reason, I focused on women for the current study.

According to Quick and Bryd-Bredbenner (2013), people of college-age are at high risk and likely to gain weight and partake in disordered eating behaviors. Due to this high risk in college students, it is important to continue studying this population in order to determine potential ways to lower this risk. The population for my study consisted of college women. This will help provide ample resources that will greatly contribute to the focus of the study.

I studied how different levels of self-consciousness can have potentially harmful or beneficial effects on the way undergraduate women see themselves and decide to

handle it in terms of their eating behaviors. I examined whether higher or lower levels of self-consciousness have a moderating effect on body image and disordered eating. So far, I have not been able to find research that looks at the moderating effect self-consciousness has on the association between disordered eating and body image. Examining this is particularly relevant to understanding the effects self-consciousness can have on one's body and the way one chooses to eat.

For the current study, the first hypothesis is higher levels of private self-consciousness are associated with a more negative body image, which is associated with increased disordered eating behaviors. The second hypothesis is lower levels of private self-consciousness are related to a more positive body image, which is linked to decreased disordered eating behaviors. The third hypothesis is higher levels of public self-consciousness are correlated with an increased negative body image and increased disordered eating behaviors. The fourth hypothesis is lower levels of public self-consciousness are related to a more positive body image and decreased disordered eating behaviors. All of these hypotheses will help me assess evidence of a moderation effect because the third variable, public or private self-consciousness, is either increasing or decreasing the pre-existing relationship between body image and disordered eating in each scenario.

Going back to the study by Walter and Yanko (2018), while in the dance studio, dancers are continuously watching themselves in a mirror. Every move they make is shown in that mirror. As a result of being overly critical of themselves during 13-hour practices, a lot of dancers develop distorted and negative body images. Pearson and Rivers (2006), Tseng et al. (2007), and Schluger (2010) have found that dancers are at

greater risk for the development of eating disorders or disordered eating than athletes that participate in different sports and non-athletes. This leads me to believe that, because of the nature of their activity, dancers have high levels of self-consciousness. This would mean that having high self-consciousness makes individuals more critical of the way they look, so it leads to a more negative body image; which might increase disordered eating behaviors. Alternatively, individuals who have low self-consciousness are not as particular about their appearance because they are not constantly obsessing over their body image (like dancers are forced to), so they have a more positive body image, and therefore may be less likely to engage in disordered eating behaviors. This is the essence of my moderation prediction.

CHAPTER II: METHOD

Participants

The current study used a sample of female undergraduate students (N = 50) enrolled at Middle Tennessee State University. The sample included the following races/ethnicities: African American (n = 13), Caucasian (n = 15), Hispanic (n = 7), Asian American/Pacific Islander (n = 4), Mixed Race (n = 4), and Other (n = 7). The average age of the participants was 18-19, and their average school classification was Freshman. In regard to BMI, 6% of the participants were underweight, 48% normal weight, 22% overweight, and 24% obese. In order to be eligible for the study, participants had to be at least 18 years of age and enrolled in the MTSU Research Pool, SONA. Participants received course credit for participating in this study.

Assessments and Measures

For this study, I used a survey approach. At the end of the survey, there were some demographic items that included the participants' heights and weights, so that a BMI could be computed for each individual based on their self-reported data. Other demographic items included age, school classification, sex, and race.

Self-Consciousness Scale-Revised. The Self-Consciousness Scale-Revised (SCS-R) by Scheier and Carver (1985) was used to measure the participants' level of self-consciousness. This scale consists of 22 items, and it has three subscales: private self-consciousness, public self-consciousness, and social anxiety (which was not included in the analyses). Responses are based on a 4-point scale (0 = *not like me at all*, 3 = *a lot like me*). The private self-consciousness subscale identifies how participants feel about themselves. A sample of items used in this subscale includes: "I think about myself a lot"

and “I generally pay attention to my inner feelings.” The public self-consciousness subscale identifies how participants think others view them. A sample of items used in this subscale includes: “I care a lot about how I present myself to others” and “Before I leave my house, I check how I look.” Sample items from the social anxiety subscale includes “It takes me time to get over my shyness in new situations” and “It’s easy for me to talk to strangers.” The SCS-R is scored by summing the items for the public self-consciousness subscale and summing the items for the private self-consciousness subscale. A higher score on the public subscale indicates higher public self-consciousness, and a higher score on the private subscale indicates higher private self-consciousness. The authors state that the internal consistency for this measure includes alphas of 0.75 for private self-consciousness, 0.84 for public self-consciousness, and 0.79 for social anxiety. Test-retest reliability is 0.76 for private self-consciousness, 0.74 for public self-consciousness, and 0.77 for social anxiety. In the current sample, the reliability for public and private self-consciousness were in the acceptable range (see Table 1).

Multidimensional Body-Self Relations Questionnaire. The Multidimensional Body-Self Relations Questionnaire-Appearance Scales (MBSRQ-AS) authored by Cash (1990) is a 34-item scale that measured participants’ body image. The majority of the measure uses a 5-point Likert scale (*1 = definitely disagree, 2 = mostly disagree, 3 = neither agree nor disagree, 4 = mostly agree, 5 = definitely agree)*. The author mentions that the MBSRQ-AS has a total of five subscales. Of these subscales, two focus on physical appearance (i.e., appearance evaluation and appearance orientation) and three focus on bodyweight attitudes (i.e., overweight preoccupation, self-classified weight, and

body area satisfaction scale). A sample of items for the appearance evaluation and appearance orientation subscales include: " I like my looks just the way they are" and "Before going out in public, I always notice how I look." These two subscales ask participants to determine how they think or feel about the way they look. "I constantly worry about becoming fat", "From looking at me, most people think I am…", and "On a scale of 1-5 choose how satisfied or dissatisfied you are with each of the following areas of your body…" are samples of items from the overweight preoccupation, self-classified weight, and body area satisfaction subscales. The overweight preoccupation subscale asks participants to determine whether they feel they are overweight, and if so the actions they may take to combat that. The self-classified weight subscale asks participants to indicate how they feel about their weight or what they believe other people think about their weight. Lastly, the body areas satisfaction subscale lists different areas of the body so that participants can rate how they feel about those specific areas. The MBSRQ-AS is summed by subscale and a mean is then calculated for each. If the participant's mean scores fall above the norms then they may be more concerned with their body image and if the mean scores fall below or within the range of the norms then they may be normally or less concerned with their body image. The authors note that the internal consistency for the subscales have alphas ranging from 0.70 - 0.89, and the test-retest reliability has a range of 0.74 - 0.91. In the current sample, the reliability for all of the subscales were within the acceptable range (see Table 1).

Eating Disorder Examination Questionnaire. The Eating Disorder Examination Questionnaire (EDE-Q 6.0) created by Fairburn and Belgin (2008), is a 28-item questionnaire that measured participants' disordered eating behaviors. The four subscales

for this measure are restraint, eating concern, shape concern, and weight concern. The restraint subscale asks participants whether or not they participate in disordered eating behaviors. This subscale has questions such as, “Have you been deliberately trying to limit the amount of food you eat to influence your shape or weight (whether or not you have succeeded)?” and “Have you tried to exclude from your diet any foods that you like in order to influence your shape or weight (whether or not you have succeeded)?” The eating concern subscale asks participants to determine how bothered they are by the way they eat. Sample questions from the eating concern subscale are “Has thinking about food, eating, or calories made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?” and “Have you had a definite fear of losing control over eating?” The shape concern subscale asks participants to identify how worried they are about the shape of their body. This subscale includes the following questions, “Has your shape influenced how you think about (judge) yourself as a person?” and “How dissatisfied have you been with your shape?” Finally, the weight concern subscale asks participants to determine how they feel about their weight. This subscale asks questions like, “Have you had a strong desire to lose weight?” and “Has your weight influenced how you think about (judge) yourself as a person?”

The majority of the items in this measure use a 7-point frequency scale over the past month (*0 = no days, 1 = 1-5 days, 2 = 6-12 days, 3 = 13-15 days, 4 = 16-22 days, 5 = 23-27 days, and 6 = everyday)*. The EDE-Q is scored by summing the subscales and calculating a mean. Scores above the mean may indicate greater levels of symptomatology. According to Berg, Peterson, Frazier, and Crow (2012), the test-retest reliability generated a range of 0.66 - 0.94 for the subscales previously mentioned,

internal consistency produced alphas from 0.70 - 0.93. In the current sample, the reliability for all of the subscales except restraint were in the acceptable range (see Table 1).

Procedure

The participants were given an in-person survey. During this time, the participants were given an informed consent form to sign and the survey. This survey included 90 items; these items were designed to measure beliefs about the participants' body image, eating attitudes, and self-consciousness. The order of presentation of the measures was counterbalanced across participants. The amount of time needed to complete the survey was approximately 15-20 minutes. After the participants completed the survey, they were debriefed about the study. The completed surveys are kept in a locked room per IRB protocol. Once all of the surveys were completed, the data were analyzed using SPSS software. This study received IRB approval and all standard ethical guidelines were followed, see Appendix A.

CHAPTER III: RESULTS

Descriptive Statistics

The results of the survey were analyzed using correlations and multiple regression. Descriptive statistics were also calculated for the data. Correlations were run to determine which aspects of self-consciousness had a stronger relationship between body image and disordered eating. Once the subscales most correlated with self-consciousness were determined, a moderation analysis was conducted to determine which aspects of self-consciousness were a moderator for disordered eating and body image. Descriptive statistics for the current sample are listed in Table 1. The average BMI of the participants was considered overweight. For the SCS-R, private self-consciousness scores for the current sample were similar to the norms reported in past literature (Scheier & Carver, 1985) (M = 17.3). Public self-consciousness scores for the current sample were slightly higher than the norm (M = 14.2).

In terms of the MBSRQ-AS, subscale scores for appearance evaluation, appearance orientation, body areas satisfaction, overweight preoccupation, and self-classified weight were comparable to the norms for appearance evaluation (M = 3.36, SD = 0.87), appearance orientation (M = 3.91, SD = 0.60), body areas satisfaction (M = 3.23, SD = 0.74), overweight preoccupation (M = 3.03, SD = 0.96), and self-classified weight (M = 3.57, SD = 0.73) reported in earlier literature (Cash, 1990).

In regards to the EDE-Q, restraint scores, eating concern scores, shape concern scores, weight concern scores, and global scores were slightly elevated compared to the norms for restraint (M = 1.25, SD = 1.32), eating concern (M = 0.62, SD = 0.86), shape

concern (*M* = 2.15, *SD* = 1.60), weight concern (*M* = 1.59, *SD* = 1.37), and global score (*M* = 1.55, *SD* = 1.21), reported Fairburn and Belgin (2008).

Table 1.

Descriptive Statistics per Subscale and BMI

	Minimum	Maximum	*M*	*SD*	α
Public SC	7.00	21.00	15.38	3.36	0.62
Private SC	7.00	26.00	17.78	4.63	0.71
Appearance Evaluation	1.43	5.00	3.05	0.81	0.84
Appearance Orientation	2.25	4.67	3.76	0.57	0.73
Body Areas Satisfaction	1.78	5.00	3.03	0.72	0.82
Overweight Preoccupation	1.00	4.50	2.93	0.93	0.71
Self - Classified Weight	1.00	5.00	3.30	0.75	0.88
Restraint	0.00	5.00	1.56	1.33	0.71
Eating Concern	0.00	3.60	1.16	0.99	0.59
Shape Concern	0.00	6.00	2.98	1.65	0.89
Weight Concern	0.00	6.00	2.67	1.62	0.79
Global Score	0.00	4.64	2.10	1.22	
BMI	16.20	39.70	25.56	5.93	

Note. *N* = 50; SC = self-consciousness.

Table 2 presents the correlations among the major measures. Public self-consciousness was positively and significantly correlated with private self-consciousness, the global score of the EDE-Q, overweight preoccupation, restraint, and negatively correlated with appearance orientation. Private self-consciousness was positively and significantly correlated with appearance orientation and public self-consciousness. BMI was positively and significantly correlated with global EDE-Q score, overweight preoccupation, self-classified weight, eating concern, shape concern, and weight concern, and negatively correlated with body areas satisfaction. The other correlations among the EDE-Q and MBSRQ-AS subscales were consistent with the expectations and past research (see Table 2).

Table 2

Subscale and B.M.I Correlations (N=50)

		1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Public SC	-												
2.	Private SC	.543**	-											
3.	B.M.I	-.097	-.038	-										
4.	Global Score	.312*	.173	.404**	-									
5.	Appearance Evaluation	-.094	.202	-.258	-.530**	-								
6.	Appearance Orientation	.499**	.446**	.075	.346*	-.077	-							
7.	Body Areas Satisfaction	.013	.268	-.297*	-.502**	.740**	.170	-						
8.	Overweight Preoccupation	.385**	.235	.300*	.706**	-.380**	.263	-.430**	-					
9.	Self- Classified Weight	-.180	-.185	.717**	.362**	-.237	-.138	-.378**	.278	-				
10.	Restraint	.310*	.150	.150	.786**	-.309*	.265	-.287*	.612**	.233	-			
11.	Eating Concern	.250	.115	.353*	.804**	-.364**	.230	-.306*	.486**	.259	.563**	-		
12.	Shape Concern	.271	.170	.454**	.912**	-.622**	.308*	-.591**	.647**	.355*	.551**	.638**	-	
13.	Weight Concern	.257	.155	.417**	.950**	-.490**	.371**	-.488**	.672**	.380**	.647**	.702**	.890**	-

Note. *. Correlation is significant at the 0.05 level. **. Correlation is significant at 0.01 level

Test of Hypotheses

In order to examine the moderator hypotheses, I utilized multiple regression to test individual measures and their interaction terms. When running these analyses, I always included BMI as a covariate in order to remove its effects on the variables of interest. In this section, I report only those models with significant (or marginally significant) interaction terms.

The multiple regression model predicting shape concern from public self-consciousness, BMI, appearance orientation, and the interaction term public self-consciousness X appearance orientation showed a marginally significant interaction `(moderation) effect. The overall model significantly predicted eating concern, $F(4, 45) = 3.096$, $p < .001$, adj. $R^2 = .320$. The individual predictors indicated that BMI ($t = -1.50$, $p = .001$) was significant. Regression coefficients and standard errors can be found in Table 3. Figure 1 demonstrates the marginal interaction ($p = .060$) between public self-consciousness and appearance orientation. In particular, in the realm of appearance orientation, higher levels of public self-consciousness combined with higher levels of appearance orientation were associated with more shape concern.

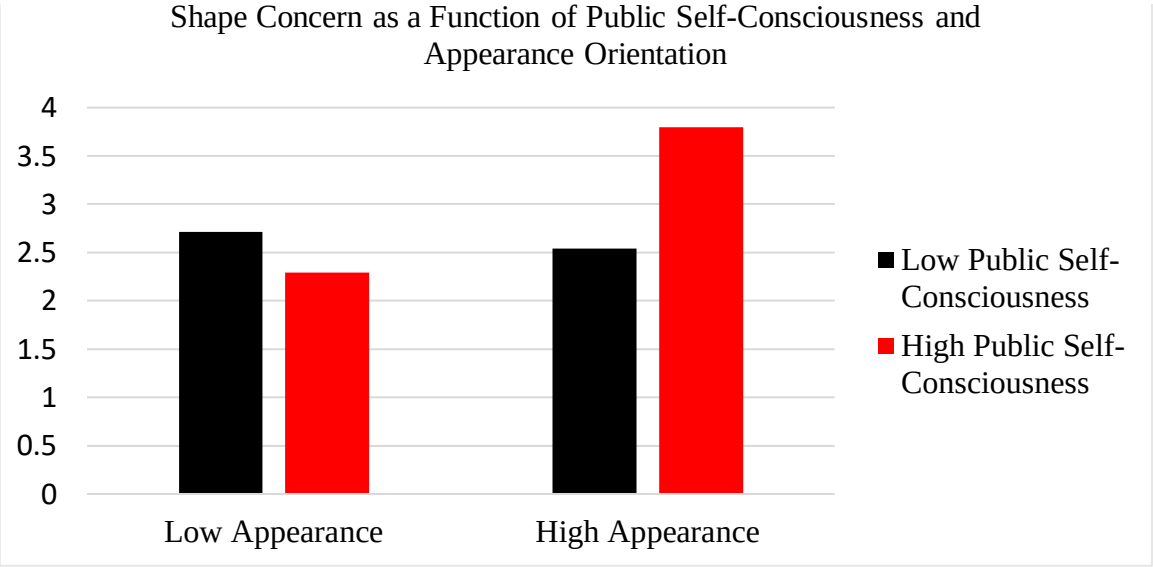
Table 3

Effect of Public Self-Consciousness, BMI, Appearance Orientation, and Public Self-Consciousness X Appearance Orientation on Eating Concern

Variable	*B*	*SE*$_B$	β
Intercept	4.341	4.497	
Public SC	-0.458	0.307	-0.932
BMI	0.124	0.033	0.444*
Appearance Orientation	-1.790	1.221	-0.622
Public SC x Appearance Orientation	0.158	0.082	1.711

Note. $*p < .05$; *B* = unstandardized regression coefficient, SE$_B$ = Standard error of the coefficient; β = standardized coefficient

Figure 1



Evidence of moderation was also found in the regression analysis predicting shape concern from public self-consciousness, BMI, self-classified weight, and the interaction term, public self-consciousness X self-classified weight. The overall model significantly predicted shape concern $F(4, 45) = 7.030$, $p < .001$, adj. $R^2 = .330$. The individual predictors indicated that public self-consciousness ($t = 2.87$, $p = .006$), BMI ($t = 2.33$, $p = .025$), self-classified weight ($t = 2.39$, $p = .021$), and the interaction term ($t = -2.25$, $p = .030$) were significant. Regression coefficients and standard errors can be found in Table 4. Figure 2 demonstrates the significant interaction between public self-consciousness and self-classified weight in regard to shape concern. In this model, the lowest levels of shape concern occurred with those participants who reported low public self-consciousness coupled with low self-classified weight, whereas the highest levels of shape concern arose from those participants with high public self-consciousness and high self-classified weight.

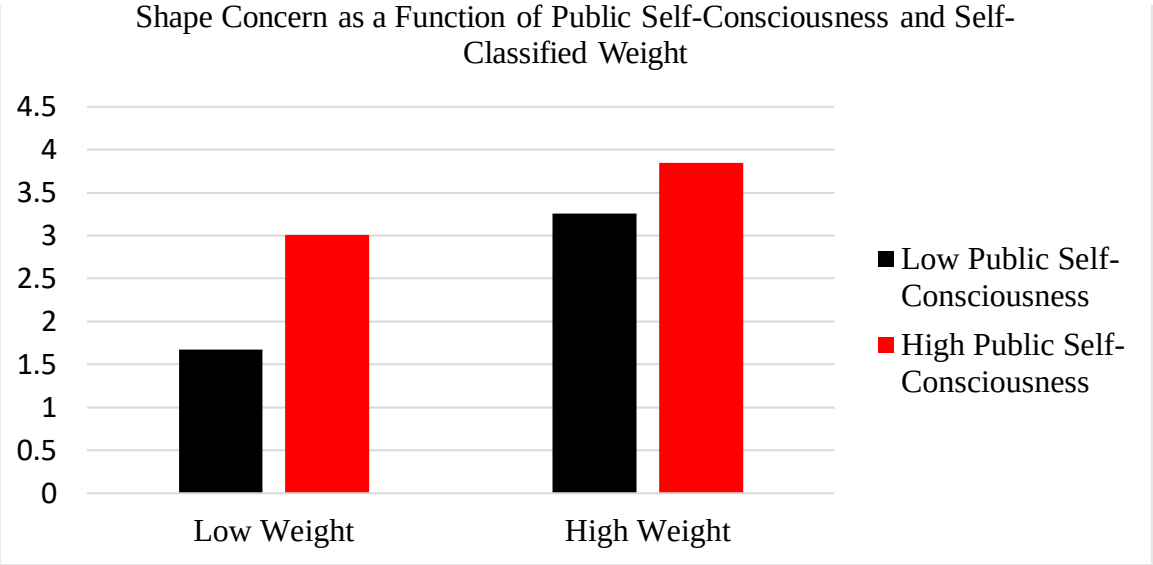
Table 4

Effect of Public Self-Consciousness, BMI, Self-Classified Weight, and Public Self-Consciousness X Self-Classified Weight on Shape Concern

Variable	*B*	*SE*$_B$	β
Intercept	-11.474	3.897	
Public SC	0.682	0.238	1.386*
BMI	0.109	0.047	0.390*
Self-Classified Weight	2.658	1.114	1.199*
Public SC x Self-Classified Weight	-0.151	0.067	-1.380*

Note. *$p < .05$; *B* = unstandardized regression coefficient, SE$_B$ = Standard error of the coefficient; β = standardized coefficient

Figure 2



A final model indicating moderation involved predicting shape concern from private self-consciousness, BMI, appearance orientation, and the interaction term, private self-consciousness X appearance orientation. The overall model significantly predicted shape concern, $F(4, 45) = 6.052$, $p < .001$, adj. $R^2 = .292$. The individual predictors indicated that BMI ($t = 3.68$, $p = .001$), and the interaction term ($t = 2.09$, $p = .043$) were significant. Regression coefficients and standard errors can be found in Table 5. Figure 3 demonstrates the significant interaction between private self-consciousness and appearance orientation in regard to shape concern. In the realm of appearance orientation, higher levels of private self-consciousness and higher levels of appearance orientation are associated with more shape concern, paralleling the model with public self-consciousness (Figure 1).

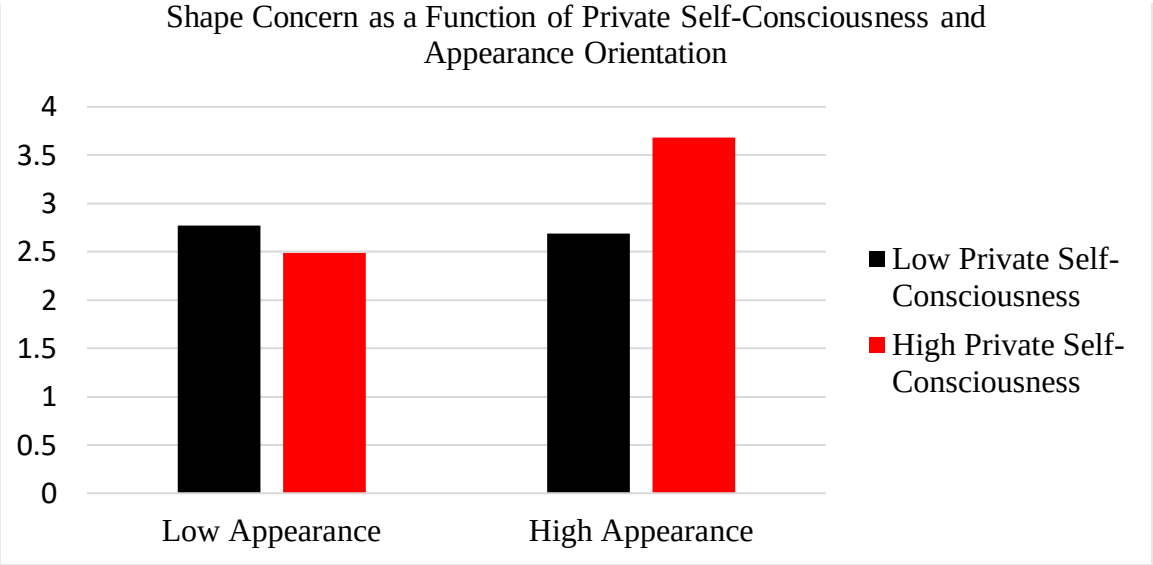
Table 5

Effect of Private Self-Consciousness, BMI, Appearance Orientation, and Private Self-Consciousness X Appearance Orientation on Shape Concern

Variable	*B*	*SE*$_B$	β
Intercept	7.847	5.528	
Private SC	0.124	0.034	0.445*
BMI	-0.659	0.333	-1.847*
Appearance Orientation	-2.161	1.418	-0.751
Private SC x Appearance Orientation	0.174	0.083	2.542*

Note. *$p < .05$; *B* = unstandardized regression coefficient, SE$_B$ = Standard error of the coefficient; β = standardized coefficient

Figure 3



CHAPTER IV: DISCUSSION

The objective of this study was to determine if self-consciousness moderates the pre-existing and heavily researched relationship between body image and disordered eating. I expected to find that self-consciousness either increased or decreased the effect of body image on disordered eating. I was also trying to explore whether or not self-consciousness levels should be considered when observing individuals with body image and disordered eating issues.

Private Self-Consciousness Hypotheses

The first hypothesis for this study stated that higher levels of private self-consciousness are related to a more negative body image, which is associated with more reported disordered eating behaviors. The second hypothesis for this study stated that lower levels of private self-consciousness are related to a more positive body image, which is associated with less reported disordered eating behaviors. As stated in the results section, I found that higher levels of private self-consciousness and appearance orientation are correlated with increased shape concern. The trend in Figure 3 showed that the participants who were low in appearance orientation and private self-consciousness, low in appearance orientation and high in private self-consciousness, and high in appearance orientation and low in private self-consciousness were all similar in regard to shape concern. However, participants who were high in appearance orientation and private self-consciousness had the highest level of shape concern. This significant interaction showed support for a moderation effect. Therefore, both hypotheses were supported by the results of this study because

participants with the highest levels of private self-consciousness were the most concerned with their shape and also reported more disordered eating behavior.

Also, the trend mentioned previously in Figure 3 supports the idea that participants with lower levels of private self-consciousness were less concerned with their shape and reported more positive eating behaviors. In this case, private self-consciousness served as moderator for body image and disordered eating because it increased the existing relationship. However, much more research must be conducted to truly explain the relationship between these three variables. There is not any current research that explores all of these variables together. However, Kinasaul et al. (2014) found that self-efficacy is a predictor for a more positive body image and less disordered eating. Even after controlling for other variables such as feminism and empowerment, the same trend persisted. This could mean that encouraging self-efficacy could diminish the effect of a negative body image and disordered eating behaviors on individuals. I believe that the same could be said for self-consciousness. Promoting lower levels of self-consciousness could have beneficial effects for individuals who have a negative body image and disordered eating behaviors. However, as I stated above, much more research must be conducted on these variables.

Public Self-Consciousness Hypotheses

My third hypothesis stated that higher levels of public self-consciousness are related to a more negative body image and increased reports of disordered eating behaviors. The fourth hypothesis stated that lower levels of public self-consciousness

are related to a more positive body image and decreased reports of disordered eating behaviors. Public self-consciousness, appearance orientation, and shape concern had a similar relationship to the variables, private self-consciousness, appearance orientation, and shape concern, as mentioned in the previous section. However, for public self-consciousness, the interaction effect was only marginally significant, which could be due to the limited sample size. As seen above in Figure 2, participants who were in the low weight and high weight group had higher levels of public self-consciousness in regard to self-classified weight and shape concern. Figure 2 showed that public self-consciousness moderated body image and disordered eating reports.

These results provide moderate support for hypotheses 3 and 4. Participants high in public self-consciousness and appearance orientation were more concerned with their body shapes, so it is not surprising that they would report more frequent disordered eating behaviors. As I have previously stated, there is limited research focusing on self-consciousness, body image, and disordered eating. However, there is some research that produces similar results. Costarelli et al. (2009) investigated the relationship between emotional intelligence, body image, and disordered eating. They found that people higher in emotional intelligence appeared to have better mental health, so they argued that a person higher in emotional intelligence is less likely than a person lower in emotional intelligence and more concerned with being overweight to have more trouble with body image and disordered eating. This is indirectly consistent with the current study because the results showed that individuals higher in both public self-consciousness and appearance orientation reported more disordered

eating. So, they are more likely than individuals with lower public self-consciousness and appearance orientation to exhibit a disturbed body image and disordered eating. In regard to self-classified weight, weight did not matter because participants both low and high in perceived weight were more concerned about their shape, so individuals who are extremely concerned with their weight may be more likely to report disordered eating behaviors. Once again, there is some support for a moderation effect, but more research needs to be conducted to adequately determine the extent.

Researchers Kelly et al. (2014) examined whether or not self-compassion moderates the relationship between BMI, disordered eating, and a negative body image. The authors found that self-compassion did moderate this relationship. Another important implication of this study is that, if people actively tried to treat themselves with compassion during difficult periods, the possibility of preventing eating pathology and the more negative body image that often results from a higher BMI is increased. This seems to coincide with the results of the current research. If individuals are lower in public self-consciousness, then it is likely that they would be less concerned with their weight, so the possibility of decreasing disordered eating and increasing body image would be greater. Therefore, if people actively tried to appreciate the skin they are in regardless of weight, then it is possible that they would partake in more healthy behaviors.

Limitations and Implications for Future Research

This current study suffered from a few limitations. The main limitation was that there was a small sample size. Another limitation was that a couple of the subscales were not as reliable as desired for the sample, and that could be directly related to having a small sample size. Also, this study was not generalizable to the general population because all of the participants were female.

The results of this study show that it is worth conducting further research on this topic because there is some support for a moderation effect. In the future, I would like to double or triple the sample size and run the study again to determine if the results will produce a greater effect. Increasing the sample size could potentially increase the reliability of the subscales. In order to make this study more generalizable, I am interested in running this study with men and seeing what effects would be present. It may also be interesting to run a similar study comparing men and women. As mentioned in a previous section, researchers Yu et al. (2018) found that men and women are quite similar in regard to frequency of disordered eating, but women are more likely to report more instances of disordered eating. For this reason, I predict that self-consciousness is more likely to moderate the relationship between body image and disordered eating in women than men, due to the lack of reporting. However, if the number of men who report disordered eating is similar to the number of women reporting, then the results of the study would be close to the results of the current study, and gender would not present many differences.

Lastly, due to the research by Walter and Yanko (2018) on body image and disordered eating in dancers, this study could be conducted with athletes to provide some

helpful information when looking into the lives of athletes who must maintain a certain physique for their sport. If I were to conduct this study, I believe there may be a lot of variability in the results depending on the sport because there are some sports like football and rugby that want athletes to be bigger, and there are other sports such as, track, figure skating, gymnastics, and cheerleading that want athletes to be more toned.

Overall, I believe the results would be similar to the results of the current study because whether an individual is overeating or undereating, there are still aspects of disordered eating that are related to their body image. So, if coaches are putting a lot of pressure on athletes to maintain a certain physique, then they are likely to exhibit more public and private self-consciousness, which may increase their negative body image and as a result, disordered eating behaviors (because they are trying to lose or gain weight). However, athletes who have the body that their coaches want them to have are likely to have lower levels of public and private self-consciousness which may mean an increased positive body image and decreased disordered eating behaviors, since they would be eating to maintain their current stature.

In conclusion, there is a lack of research regarding the relationship between self-consciousness, body image, and disordered eating. Thus, there is much research that must be completed before we can determine the true impact of self-consciousness as a moderator. This study served as a good baseline, and provided reasonable support for a moderation effect, which means that this research is worth pursuing further. Hopefully, this study will encourage other researchers to explore this area and look deeper into this subject matter. The results of further research can prove to be extremely helpful to

clinicians, researchers, and people in general because they identify, in self-consciousness, a potentially important facet to the body image and disordered eating literature.

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APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

IRB
INSTITUTIONAL REVIEW BOARD
Office of Research Compliance,
010A Sam Ingram Building,
2269 Middle Tennessee Blvd
Murfreesboro, TN 37129

MIDDLE TENNESSEE STATE UNIVERSITY

IRBN007 – EXEMPTION DETERMINATION NOTICE

Wednesday, December 11, 2019

Principal Investigator	**KeyOndria Ross** (Student)
Faculty Advisor	Tom Brinthaupt
Co-Investigators	NONE
Investigator Email(s)	*kar5v@mtmail.mtsu.edu; tom.brinthaupt@mtsu.edu*
Department	Psychology
Protocol Title	***Self-awareness and its moderating effect on body image and disordered eating***
Protocol ID	**19-1155**

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXEMPT** review mechanism under 45 CFR 46.101(b)(2) within the research category *(2) Educational Tests* A summary of the IRB action and other particulars in regard to this protocol application is tabulated as shown below:

IRB Action	**EXEMPT from furhter IRB review*** **	Date	**2/15/19**
Date of Expiration	NOT APPLICABLE		
Sample Size	400 (FOUR HUNDRED)		
Participant Pool	**Healthy Adults (18 or older) - MTSU students (female)**		
Exceptions	SONA system rules for data retension is allowed as necessary		
Mandatory Restrictions	1. Participants must be 18 years or older 2. Informed consent must be obtained from the participants 3. Identifying information must not be collected		
Restrictions	1. All restrictions for exemption apply. 2. Mandatory disclosure of the exclusion criteria. 3. Mandatory disclosure on compensation requirements.		
Comments	NONE		

***This exemption determination only allows above defined protocol from further IRB review such as continuing review. However, the following post-approval requirements still apply:

- Addition/removal of subject population should not be implemented without IRB approval
- Change in investigators must be notified and approved
- Modifications to procedures must be clearly articulated in an addendum request and the proposed changes must not be incorporated without an approval
- Be advised that the proposed change must comply within the requirements for exemption
- Changes to the research location must be approved – appropriate permission letter(s) from external institutions must accompany the addendum request form
- Changes to funding source must be notified via email (irb_submissions@mtsu.edu)
- The exemption does not expire as long as the protocol is in good standing

- Project completion must be reported via email (irb_submissions@mtsu.edu)
- Research-related injuries to the participants and other events must be reported within 48 hours of such events to compliance@mtsu.edu

Post-approval Protocol Amendments:

The current MTSU IRB policies allow the investigators to make the following types of changes to this protocol without the need to report to the Office of Compliance, as long as the proposed changes do not result in the cancellation of the protocols eligibility for exemption:

- Editorial and minor administrative revisions to the consent form or other study documents
- Increasing/decreasing the participant size

Only THREE procedural amendment requests will be entertained per year. This amendment restriction does not apply to minor changes such as language usage and addition/removal of research personnel.

Date	Amendment(s)	IRB Comments
12/11/2019	1. Sample size increased from 200 to 500 (FIVE HUNDRED). 2. Revision to the two measures are made and the revised instruments are on file. The informed consent script has also been revised to reflect this amendment.	IRBA2020-080

The investigator(s) indicated in this notification should read and abide by all applicable post-approval conditions imposed with this approval. Refer to the post-approval guidelines posted in the MTSU IRB's website. Any unanticipated harms to participants or adverse events must be reported to the Office of Compliance at (615) 494-8918 within 48 hours of the incident.

All of the research-related records, which include signed consent forms, current & past investigator information, training certificates, survey instruments and other documents related to the study, must be retained by the PI or the faculty advisor (if the PI is a student) at the sacure location mentioned in the protocol application. The data storage must be maintained for at least three (3) years after study completion. Subsequently, the researcher may destroy the data in a manner that maintains confidentiality and anonymity. IRB reserves the right to modify, change or cancel the terms of this letter without prior notice. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board
Middle Tennessee State University

Quick Links:

Click here for a detailed list of the post-approval responsibilities.
More information on exmpt procedures can be found here.