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## Conformity to Gender Stereotypes Impacting Body-Esteem, Eating, and Exercise Behaviors in Female College Students

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**Conformity to Gender Stereotypes Impacting Body-Esteem, Eating, and Exercise  
Behaviors in Female College Students**

A Thesis

Presented to the Department Sociology and Criminology

College of Liberal Arts and Sciences

and

The Honors Program

of

Butler University

In Partial Fulfillment

of the Requirements for Graduation Honors

Madison Rae Sauerteig

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Conformity to Gender Stereotypes Impacting Body-Esteem, Eating, and  
Exercise Behaviors in Female College Students

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Conformity to gender stereotypes and the impacts they may have on body-esteem, eating, and exercise behaviors have always been a very important topic in society because of the mental, physical and emotional problems that could arise. In society today, it is extremely unlikely to go a day without hearing or seeing something about eating healthy, exercising, or performing the correct “role”. With this increased pressure from the media and peers, conforming to the stereotypes in society can impact someone beyond what they may believe possible or even realize. A stereotype is a widely held and oversimplified image or idea of a particular person or thing. It is a preconceived notion that is generally conceptualized to an entire group of individuals or behaviors, which tend to be inaccurate and potentially harmful. The purpose of this study is to examine the link between gender stereotype adherence and body-esteem, eating, and exercise behaviors. Multiple regression analyses are used to examine a sample of 248 female college students. Findings reveal that several female gender stereotypes have effects on body-esteem, eating and exercise behaviors. Of particular significance was the stereotype that females should strive to be thin.

Keywords: gender stereotype, female, body-esteem, eating behavior, exercise

## Conformity to Gender Stereotypes Impacting Body-Esteem, Eating, and Exercise Behaviors in Female College Students

As the amount of workout facilities and dieting options increase in the United States, there has been an amplified interest in what causes people to focus so much on their appearance, and what the pressures are that make someone focus on appearance more than others. People in society feel a pressure to fit a certain gender stereotype, while avoiding everything that isn't within that stereotype. These stereotypes can impact not only how one person views another, but how someone views himself or herself, leading to long term effects. As Linda Brannon (2015) states: "the power of stereotypes, scientists had long figured, lay in their ability to change the behavior of the person holding the stereotype" (Brannon, 2015). However, gender stereotypes have been shown to provide different motives and importance in appearance related concerns for men and women. They provide not only the prescription about what women and men should be like, but they also place limits on what traits and behaviors are allowed to be acceptable for their gender. The sharp contrast in what it means to be a man versus what it means to be a woman affects nearly every action that individuals take on a daily basis. Men and women try to fit into their gender stereotypes in order to be successful in society. It has been found through the CMNI scale that masculine norms include having a desire to win, having emotional control, participating in risk-taking, being violent, being dominant, portraying oneself as a play boy, being self-reliant, having a focus on work, having power over women, having disdain for homosexuals, being physically tough, and having a pursuit for a status (Mahalik et. al 2003). The feminine norms that were found through the development of the CFNI scale include being nice in relationships, being thin, being modest, being domestic, caring for children, having a

focus on romantic relationships, being sexually loyal and investing in one's appearance (Mahalik et. al 2005).

As shown through by these gender stereotypes, a man's success is often based on physical effectiveness; however, a woman's success is often based on physical attractiveness. As quoted in the study "Gender-Differentiated Associations among Objectified Body Consciousness, Self Conceptions and Physical Activity" by John and Ebbeck (2008:630): "men's body experience is instrumentally different from that of women, in that, for men, a positive body self-relationship is located in what their body can do and how it feels rather than solely on body looks" (John and Ebbeck 2008). John and Ebbeck (2008) found that women reported higher levels of objectified body consciousness and body shame than men did. Objectified Body Consciousness is a model of physical self-conceptions and self-reported physical activities.

The purpose of this study is to examine how the level of conformity to gender stereotypes impact body image, eating behaviors, and exercise, and to attempt to provide support for the issue of gender stereotypes and how those stereotypes have serious implications on how individuals will live their lives. Data was administered to undergraduate students at Butler University and gathered by means of an online questionnaire. Several reliable scales were used to assess the independent and dependent variables.

#### DIFFERING APPEARANCE GOALS AND ALTERING ONE'S SELF-IMAGE

A common way for people to adhere to their gender stereotype is through their appearance. While men focus less on appearance, it still plays a role in how they feel they should express themselves. When an individual walks into a gym or fitness center, it is common to see a trend of women on the cardio machines, and men in the weight room. Women tend to exercise to

lose weight, while men have a goal of muscle building. What has prompted this difference? D.A Robin (2015) states: “instead of working towards the goal of overall well-being, health, and bodily functionality, our fitness goals revolve around aesthetics and superficial appeal. Rather than being wholesome, we become fixated on how we want others to compare our physical appearance to the constructed norm” (The Daily Evergreen 2015). Cultural images put forth as the ideal become the basis of physical self-evaluation. This has been seen to be problematic for women because the ideal body emphasized by gender stereotypes is reaching a level of unattainability, but it causes women to exercise and focus on eating behaviors to an extreme amount. Image ideals are very important to society impacting the actions taken on a day to day basis; however, gender stereotypes play a crucial role in the actions that someone will take to be seen as successfully fulfilling their role.

Many people try to alter the views they have of themselves in order to accomplish their goals and fit the gender stereotype through eating behaviors and exercise patterns. The study titled: “Body image, Self-esteem and Health-related Behaviors among Male and Female First Year College Students” by Lowery et. al (2005) examines the relationship among self-esteem, body image and health related behaviors including exercise. The generation that has the greatest concern over their body image is college students. It has been found that 90% of college students report that they worry about body image. Lowery’s (2005) study wanted to determine sex differences in body image, examine college students’ health-related behaviors in relationship to body image and self-esteem, and to examine whether regular exercise is associated with a more positive body image and a higher self-esteem. Society has portrayed that an individual would have a more positive body image if they feel like they resemble their gender. This study found that compared to men, women report more body surveillance and greater body shame. They are



more dissatisfied with their weight and physical appearance because there is a greater discrepancy between their ideal and real body figures. The second finding was that for both men and women, lower self-esteem was related to higher body shame. Third, men who exercised had a higher self-esteem and more positive body image than women who regularly exercised. Finally, students with more positive health related behaviors have higher self-esteem and a more positive body image than students with negative health related behaviors (Lowery et. al 2005).

Another study that highlights the difference between men and women in relationship to how they view their bodies is “Body Image and Exercise: A Study of Relationships and Comparison between Physically Active Men and Women” by Davis and Cowles (1991). It has been portrayed that women want to lose weight to fit the idealized ultra-slender body, while men either wish to lose weight or wish to gain weight. This study found that women reported greater body dissatisfaction and greater body focus than men, and they were more likely to exercise to lose weight and to feel better physically and mentally (Davis and Cowles 1991). Furnham, Badmin, and Sneade (2002) found the same results in their study concluding that one important difference between men and women is that men view being underweight as bad, while women view it as good (Furnham, Badmin, and Sneade 2002). Another difference appears in the reasons for dissatisfaction with body image. Women normally show dissatisfaction by their desire to lose weight, whereas many men want to gain weight instead of lose it (Furnham et al. 2002). The study by Davis and Cowles (1991) further provides support for the different pattern of correlations between men and women in relationship to physical activity, current self and ideal self. It proposes that men who place a greater importance on their appearance will focus on a more diligent exercise regimen to consequently feel more satisfied with their appearance because they want to lose fat and increase muscle. On the other hand, the more focus on appearance by

women, the more likely they are to engage in exercise, but it is harder to achieve the slender shape desired. 80% of the people in this study had a desire to change their current weight (Davis and Cowles 1991). This is important to note because societal pressures of gender stereotypes have an effect on how people view themselves. If one does not view themselves in good relationship to gender roles, a strong desire to meet those roles is produced. The study emphasizes that women's preoccupation with their physical appearance is consistent with the stereotype of female beauty. The difference between men and women is important in this study. Women want to lose weight to look slender, and men tend to want to lose fat and increase muscle. Gender stereotypes are being seen as having an extra pressure on society today with the increased focus on exercise, eating behaviors, and appearance related concerns.

#### **GENDER STEREOTYPES: HOW THEY CHANGE AN INDIVIDUAL IN MULTIPLE WAYS**

There have been two previous studies that tie together gender stereotypes, body image, exercise, and eating behaviors in an important way which provide support for the significance of the issue in society. The qualitative study called: "Body Image Concerns in Female Exercisers and Athletes: A Feminist Cultural Studies Perspective" was completed by Krane et al. (2001) Looking at past research it was found that traditionally, masculinity is linked to strength, virility and power, while femininity is linked to gracefulness, weakness and inferiority. Furthermore, women tend to focus on the beauty benefits of exercise rather than the health benefits because their main goal of exercise is weight loss, muscle toning, enhancing body shape, and attractiveness because of the goals of femininity. The purpose of this study was to conduct focus group interviews in order to examine more full relationships among eating, exercise and body image in female exercisers and athletes. The specific research questions were: How do these exercisers and athletes perceive their bodies compared to cultural expectations, and how are

eating and exercise patterns related to the perceptions of their bodies? The way that these women interpreted their role in society, greatly affected whether they dieted and exercised. Key findings from this study proved that our culture emphasizes a narrowly defined, ideal body for women. This can be described as a body that is fit, slim, and toned, but not too muscular. Many women were quoted saying they wanted to be thinner and have no body fat. This image of the perfect body has been set as the culturally ideal body, and most women believe that they can achieve this through exercise and eating habits. Another important finding was that most women felt better about themselves as a whole the closer they were to the culturally accepted female body they described (Krane et al. 2001). This is similar to a higher body self-esteem as described in the studies above. Women place their personal worth in how they look because society places this pressure on them. Women have been convinced that social gains, a better life, and improved relationships can come from being attractive in the eyes of society. Overall, how women look impacts everything they do. If a woman is not confident about their appearance, they will exercise and decline their food intake. Women often find themselves so obsessed with their weight that it is all they think about, effecting every daily action.

Furthermore, the Development of the Conformity to Feminine Norms Inventory by Mahalik et al. (2005) described studies that the inventory was used for. Particularly important was the 3<sup>rd</sup> study using the Feminine Norms Inventory. The CFNI is an 84- item inventory with an 8 factor structure labeled as nice in relationships, thinness, modesty, domestic care for children, romantic relationship, sexual fidelity and invest in appearance, which are 8 common stereotypes that place pressures on women. The purpose of the third study with this scale looked at a comparison between the culture stereotype of femininity and eating behaviors. It was found that conformity to the dominant cultural norms of femininity may be relate to the development of

eating disorder symptomatology (Mahalik et al. 2005). This study supports the overall theme in society that body dissatisfaction and engagement in weight control behaviors are positively associated with conformity to appearance and the need for thinness norms. Someone does not have to have an eating disorder to be seen as conforming to the gender stereotype of being female, the excessive focus on eating behaviors is just as important and prevalent.

Women believe that if they fail to meet the cultural prescriptions for attractiveness, they may experience sanctions such as obesity stigmatization or not promoting the correct gender roles. They may feel like they are “insufficiently feminine” causing them to exercise more or partake in certain eating behaviors. While there is a Conformity to Masculine Norms Inventory (Mahalik et al. 2003), the factor struggles do not relate to appearance like they do for women. The factors more related to dominance, power, and primacy of work. However, dominance and power can be related to appearance because men can relate muscularity and physical attractiveness to power.

While there has been a lot of focus on women and how they feel about their appearance, there has been less of a focus on men and the stereotypes they feel like they need to fill based on their appearance. Why is society seeing trends where most women partake in diets and cardio exercise, while men tend to use protein supplements and lift weights? While this study intended to answer this question, unfortunately due to low participation from males, they were taken out of the analysis, inhibiting the ability to find differences between the two genders.

This study explores further the stereotypes that women feel like they need to fill and how it effects eating behaviors, exercise patterns, and women’s view of themselves. This study furthers research by analyzing the relationship between gender stereotypes, intensity of and reasons for exercise, and eating behaviors. As Brannon (2002) states: “even if the person does

not believe the stereotype or accept that it applies, the threat of being identified with a negative stereotype can be an ever-present factor that puts a person in the spotlight and creates tension and anxiety about performance” (Brannon 2002). Based on past research, I have proposed four hypotheses for this study:

*H1:* The greater someone relates to their own gender stereotype, the more pressure they feel to be a certain way, which will lead to an increased focus on exercise and eating behaviors, and a lower body-esteem.

*H2:* Women will feel a greater pressure to base their success off of their appearance, increasing their focus on body-esteem, exercise and eating behaviors.

*H3:* An individual does not have to adhere to all the stereotypes in order to feel the effect from them.

*H4:* The pursuit of a thin ideal and investment in appearance will have the greatest effect on women’s body-esteem, eating behaviors, and exercise patterns.

## METHODS

### *Participants*

A convenience sample of 271 undergraduate college students (248 female, 23 male) participated in the current study. As stated above, due to the low participation rate of males, the rest of the paper will focus only on findings for the 248 female participants. Butler participants were recruited through emails from sorority and fraternity members, head secretaries of the different colleges, and groupme messages from members of sports teams. The majority of college students were white (n=233), with the remainder of participants being Black or African

American (n=2), Asian (n=7), or other (n=6). Ages of participants ranged from 18-22+ years old, with the most common age group being 19 years old (27.8%). 64.9% of participants are involved in Greek life, while 34.1% are not. The majority of participants (n=226) reported not being on an athletic or club sports team in college. Participants completed an online questionnaire that took them approximately 10-15 minutes. Due to unanswered questions, 124 surveys were discarded from the analysis.

### *Materials*

In addition to the demographic information that was collected (table 1), participants answered questions based on conformity to gender stereotypes, body-esteem, eating behaviors, and exercise patterns.

#### *Gender stereotypes.*

The Conformity to Feminine Norms Inventory Abbreviated version (Parent and Bonnie, 2010) was used in this study. Based on past research, the abbreviated scales take out the weak indicators, and only focus on the indicators that have produced strong resulting feminine norms. For the CFNI respondents indicated how much they agreed with items using a 4 point scale (Strongly disagree, disagree, agree, strongly agree). Females answered 45 questions that could be grouped into eight feminine norms. These norms included *nice in relationships*, *thinness*, *modesty*, *domestic*, *care for children*, *romantic relationship*, *sexual fidelity*, and *invest in appearance*. See table 2 for sample items from each subscale.

Table 2: Definitions and Sample Items for Each of the Eight Subscales of the Conformity to Feminine Norms Inventory (Mahalik et. al, 2005)

<b>Subscale</b>	<b>Definition of Feminine Norm</b>	<b>Sample Items</b>
<b>Nice in relationships</b>	Develop friendly and supportive relationships with others	It is important to let people know they are special. I don't go out of my way to keep in touch with my friends.
<b>Thinness</b>	Pursue a thin body ideal	I am always trying to lose weight. I would be happier if I was thinner.
<b>Modesty</b>	Refrain from calling attention to one's talents or abilities	There is nothing wrong with bragging. I always downplay my achievements.
<b>Domestic</b>	Maintain the home	I enjoy spending time making my living space look nice. I do all the cooking, cleaning, and decorating where I live.
<b>Care for Children</b>	Take care and be with children	Taking care of children is extremely fulfilling. I would babysit for fun.
<b>Romantic Relationship</b>	Invest self in romantic relationship	Whether I'm in one or not, romantic relationships are often on my mind. I pity people who are single.
<b>Sexual Fidelity</b>	Keep sexual intimacy contained within one committed relationship	I would feel guilty if I had a one-night stand. I would only have sex if I was in a committed relationship like marriage.
<b>Invest in Appearance</b>	Commit resources to maintaining and improving physical appearance	I never wear make-up. I get ready in the morning without looking in the mirror very much.

### *Body-Esteem Scale.*

The Body-Esteem Scale developed by Franzoli and Shields (1984) prompts participants to indicate how they feel about that part or function of their own body using a 5 point likert-scale ranging from *I have strong negative feelings* to *I have strong positive feelings*. Three factors have previously emerged for these 35 body parts and functions in accordance to women. They include *Sexual Attractiveness*, *Weight Concern*, and *Physical Condition*. These same factors are used in the current study.

### *The Eating Attitudes Test.*

Participants answered questions based on eating behavior using the Eating Attitudes Test (Garner and Garfinkel 1979). Eating behavior as a concept for this study is defined as the way someone feels about eating and actions they have taken on various eating behaviors. The EAT is a 40-item multidimensional self report scale that requires respondents to indicate level of participation for various eating behaviors. *"I find myself preoccupied with food"* and *"I am aware of the calorie content of foods that I eat"* are two examples of what can be found on this test. Respondents answered on a 6 point scale ranging from *always* to *never*. Talwar (2011) grouped the different subscales in order to do a factor analysis on the 40 questions. These subscales were also used in the current study, and they include *dieting behavior*, *oral control*, *food preoccupation*, and *body image*.

### *Exercise.*

Exercise was measured through a variety of different questions focusing mainly on intensity, frequency and reasons for exercise. Participants were first asked if they exercise at all. If they said that they exercised "0 days", they would not have to finish the rest of the exercise



portion of the survey. Participants that did exercise, were then asked questions based on duration of exercise per session, followed by reasons for exercising taken from the analysis by Cash, Novy and Grant (1994) titled: “Why do Women Exercise? Factor Analysis and Further Validation of the Reasons for Exercise Inventory”. Examples of reasons included, “*to be slim*”, “*to be attractive for potential partners*”, and “*to improve my endurance*”. Participants would indicate the importance of each of the 14 items independently on a 5 point scale ranging from extremely important to not at all important. In order to analyze these reason variables, they were grouped into 5 categories including *fitness/ health management*, *appearance/ weight management*, *stress/mood management*, *socializing*, and *muscle tone*.

### *Procedure*

Participants used an online questionnaire website called Qualtrics to respond to the above measures. First, they would have to indicate if they agreed to participate in light of the informed consent question. They would then answer demographic questions, followed by their appropriate Conformity to Stereotype questionnaire, then the Body-Esteem Scale, Eating Attitudes Test, and finishing the survey with the Exercise questionnaire. If participants did not answer every question applicable to them, any answers they did provide were removed from the data analysis.

## RESULTS

The main question of interest was to what extent does level of conformity to gender stereotypes in society effect body image, eating behaviors, and exercise for women. Taken together, the results seem to show that the category of gender stereotype plays a big role in whether or not it has a positive, negative, or no effect on body image, eating behaviors, and exercise.

Tables 2-4 present the findings regarding the effect of gender stereotype adherence and how that impacts an individual's personal body-esteem. The adherence to the women stereotypes of thinness ( $p = .002$ ,  $\beta = .203$ ), modesty ( $p = .001$ ,  $\beta = .224$ ) and sexual fidelity ( $p = .005$ ,  $\beta = .189$ ) were found to have a significant effect on sexual attractiveness as shown in Table 2. Additionally, outlined in Table 3, thinness ( $p = .000$ ,  $\beta = .683$ ), modesty ( $p = .027$ ,  $\beta = .111$ ), and investment in a romantic relationship ( $p = .029$ ,  $\beta = -.115$ ) have significant effects on Weight Concern. The last variable of Body Esteem, Physical Condition, was found to be significantly affected by adherence to niceness in relationships ( $p = .010$ ,  $\beta = -.175$ ), thinness ( $p = .000$ ,  $\beta = .231$ ), and modesty ( $p = .019$ ,  $\beta = .146$ ) (Table 4). Therefore, Gender Stereotype Adherence was found to effect body-esteem in some, but not all female gender stereotypes. This means that the more someone agreed to the statements in the Conformity to Feminine Norms inventory, based on the different subscales, the more their body-esteem was effected in a negative way. Therefore, hypothesis 3 was supported from this analysis. The pursuit of a thin body ideal was extremely related to body esteem, with all three subcategories having a significance greater than .001. This provides support for part of hypothesis 4, that thinness will have a great effect on women's body-esteem.

Tables 5-8 present the findings regarding the effect of gender stereotype adherence on eating behaviors. Table 5 looks at the outcome of dieting behavior. The questions in this subscale were all related to an avoidance of food and a preoccupation with being thinner. The higher the adherence to the female stereotypes of thinness ( $p = .000$ ,  $\beta = .676$ ), domestic ( $p = .048$ ,  $\beta = .099$ ) the more one's dieting behavior increased, but the more someone invests themselves in a romantic relationship ( $p = .031$ ,  $\beta = -.115$ ), their dieting behavior decreased. Table 6 outlines the effects on oral control. Oral control relates to self-control of eating and the perceived pressure from others

to gain weight. Thinness and Investment in a romantic relationship both had an effect on oral control, with thinness having a great positive effect ( $p=.000$ ,  $\beta=.697$ ) and investment in a romantic relationship having a negative effect ( $p=.036$ ,  $\beta=-.107$ ). Table 7 shows results that thinness and investment in a romantic relationship have an effect on food preoccupation. The food preoccupation variable consists of items reflecting thoughts about food. Of interest here is that thinness had a positive relationship with food preoccupation ( $p=.000$ ,  $\beta=.523$ ), but investment in a romantic relationship had a negative relationship ( $p=.001$ ,  $\beta=-.201$ ), similar to the oral control variable and the dieting behavior variable. Table 8 exhibits the findings that the female stereotype of thinness ( $p=.019$ ,  $\beta=-.160$ ) had a negative relationship to body image, the physical appearance of the individual. Taken together, these findings of eating behavior provide partial support for Hypothesis 3 that some gender stereotypes, but not all have an effect on one's overall eating behavior. An individual does not have to adhere to all the stereotypes in order to show unhealthy eating behaviors. Support is provided for Hypothesis 4, because the pursue of a thin ideal, one's perception of appearance, had an effect on all four subscales of the EAT.

Tables 9-15 present findings regarding gender stereotype adherence on exercise behaviors as well as how often someone exercises. Table 9 looks at how gender stereotype adherence effects how often someone exercises per week. It was found that the more domestic someone is, the less often they exercise ( $p=.001$ ,  $\beta=-.210$ ). Also, the more someone focuses on developing friendly and supportive relationships, the less days they exercise ( $p=.026$ ,  $\beta=-.154$ ). However, age did have a positive effect on exercise. People that are older were found to exercise more days. ( $p=.025$ ,  $\beta=.143$ ). Table 10 presents that affiliation in Greek life was found to be the only variable associated with how long someone exercises per session ( $p=.038$ ,  $\beta=.151$ ). Table

11 presents that thinness has a strong negative effect ( $p=.001$ ,  $\beta=-.242$ ) on fitness/ health management, and nice in relationships has a positive effect ( $p=.007$ ,  $\beta=.207$ ) on fitness/ health management. Table 12 presents findings that thinness ( $p=.000$ ,  $\beta=.685$ ), age ( $p=.030$ ,  $\beta=.110$ ), affiliation in Greek life ( $p=.007$ ,  $\beta=.142$ ), and investment in a romantic relationship ( $p=.016$ ,  $\beta=.127$ ) all have a positive effect on appearance/ weight management. Table 13 shows that conformity to any feminine stereotype has no effect on whether someone exercises for socializing reasons. Table 12 displays that only affiliation in Greek life ( $p=.023$ ,  $\beta=.166$ ) and the stereotype that females should maintain the home ( $p=.041$ ,  $\beta=.143$ ) have a positive effect on exercising for muscle tone. Table 14 shows that the pursuit of a thin ideal has a negative effect on exercising for stress/ mood management ( $p=.000$ ,  $\beta=-.262$ ). In contrast, the female stereotype that focuses on developing friendly and supportive relationships with others has a positive effect of stress/ mood management exercise behaviors ( $p=.001$ ,  $\beta=.251$ ).

In summary, multiple regression analyses show that there is a main effect of conformity to gender stereotype; therefore, body-esteem, eating behaviors, and reasons for exercise are associated with stereotype adherence. However, the type of stereotype is important, because not all were found to have an effect on the outcome variables. The ones that were found to have an effect on some variables included thinness, domestic, romantic relationships, modesty, and sexual fidelity. Care for children, and investment in appearance did not have an effect on any of the variables. Age and affiliation in Greek life only had an effect on a couple exercise variables. Race did not have an effect on any variable, possibly because the sample was mostly white (94%). Support was found for all four hypotheses under particular circumstances.

Table 1. Means and Standard Deviations of Demographic Variables	
	Total Sample (n=248)
Age (mean in years)	19.82 (1.238)
White	.94
Affiliated in Greek Life	.64
College athlete	.089

Independent Variable	B (SE)	$\beta$
Age	-.116 (.311)	-.024
Race	-.599 (.409)	-.090
Affiliated in Greek Life	-.988 (.816)	-.078
Nice in Relationships	-.043 (.105)	-.029
Thinness	.363 (.115)**	.203
Modesty	.619 (.176)***	.224
Domestic	-.130 (.148)	-.055
Care for children	-.173 (.104)	-.110
Be in a romantic relationship	-.183 (.131)	-.093
Sexual fidelity	.270 (.095)**	.189
Invest in appearance	.114 (.118)	.063

Note. N= 248. \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 3. Regression of the Conformity to Feminine Norms: Weight Concern (Body-Esteem)		
Independent Variable	B (SE)	$\beta$
Age	.584 (.351)	.083
Race	-.077 (.463)	-.008
Affiliated in Greek Life	.863 (.923)	.047
Nice in Relationships	-.093 (.119)	-.043
Thinness	1.756 (.130)***	.683
Modesty	.442 (.199)*	.111
Domestic	-.139 (.167)	-.041
Care for children	.081 (.118)	.036
Be in a romantic relationship	-.326 (.149)*	-.115
Sexual fidelity	-.042 (.108)	.020
Invest in appearance	-.006 (.134)	-.002

Note. N= 248. \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 4. Regression of the Conformity to Feminine Norms: Physical Condition (Body-Esteem)

Independent Variable	B (SE)	$\beta$
Age	.449 (.331)	.175
Race	-.083 (.435)	-.011
Affiliated in Greek Life	-.325 (.868)	-.024
Nice in Relationships	-.289 (.111)**	-.175
Thinness	.451 (.122)***	.231
Modesty	.440 (.187)*	.146
Domestic	-.062 (.157)	-.024
Care for children	-.108 (.111)	-.063
Be in a romantic relationship	-.178 (.140)	-.083
Sexual fidelity	-.042 (.101)	-.027
Invest in appearance	.140 (.126)	.071

Note. N= 248. \*p < .05, \*\*p < .01, \*\*\*p < .001.



Table 5. Regression of the Conformity to Feminine Norms: Dieting Behavior (Eating Behavior)		
Independent Variable	B (SE)	$\beta$
Age	-.602 (.399)	-.076
Race	-.459 (.525)	-.043
Affiliated in Greek Life	-.695 (1.047)	-.034
Nice in Relationships	.062 (.134)	.025
Thinness	1.947 (.147)***	.676
Modesty	-.070 (.226)	-.016
Domestic	.377 (.190)*	.099
Care for children	-.090 (.134)	-.036
Be in a romantic relationship	-.366 (.169)*	-.115
Sexual fidelity	.072 (.122)	.031
Invest in appearance	.064 (.152)	.022

Note. N= 248. \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 6. Regression of the Conformity to Feminine Norms: Oral Control  
(Eating Behavior)

Independent Variable	B (SE)	$\beta$
Age	-.202 (.240)	-.041
Race	-.349 (.315)	-.052
Affiliated in Greek Life	-.476 (.629)	-.037
Nice in Relationships	-.070 (.081)	-.046
Thinness	1.257 (.088)***	.697
Modesty	-.053 (.136)	-.019
Domestic	.161 (.114)	.068
Care for children	-.049 (.080)	-.031
Be in a romantic relationship	-.213 (.101)*	-.107
Sexual fidelity	.062 (.073)	.043
Invest in appearance	.125 (.091)	.068

Note. N= 248. \*p < .05, \*\*p < .01, \*\*\*p < .001.

Independent Variable	B (SE)	$\beta$
Age	-.493 (.285)	-.098
Race	-.117 (.375)	-.017
Affiliated in Greek Life	-.681 (.747)	-.052
Nice in Relationships	-.097 (.096)	-.062
Thinness	.959 (.105)***	.523
Modesty	.025 (.161)	.009
Domestic	.141 (.135)	.059
Care for children	-.134 (.095)	-.083
Be in a romantic relationship	-.407 (.120)***	-.201
Sexual fidelity	.005 (.087)	.003
Invest in appearance	-.171 (.108)	-.092

Note. N= 248. \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 8. Regression of the Conformity to Feminine Norms: Body Image (Eating Behavior)

Independent Variable	B (SE)	$\beta$
Age	-.038 (.166)	-.015
Race	-.216 (.219)	-.064
Affiliated in Greek Life	-.534 (.436)	-.083
Nice in Relationships	-.067 (.056)	-.088
Thinness	-.144 (.061)*	-.160
Modesty	-.025 (.094)	-.018
Domestic	.129 (.079)	.109
Care for children	-.046 (.056)	-.059
Be in a romantic relationship	-.038 (.070)	-.038
Sexual fidelity	.039 (.051)	.055
Invest in appearance	.100 (.063)	.110

Note. N= 248. \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 9. Regression of the Conformity to Feminine Norms:  
How many days per week do you exercise?

Independent Variable	B (SE)	$\beta$
Age	.215 (.095)**	.143
Race	.079 (.126)	.039
Affiliated in Greek Life	.049 (.250)	.013
Nice in Relationships	-.072 (.032)**	-.154
Thinness	-.042 (.035)	-.076
Modesty	-.033 (.054)	-.039
Domestic	-.152 (.045)***	-.210
Care for children	.018 (.032)	-.038
Be in a romantic relationship	.017 (.040)	.029
Sexual fidelity	.008 (.029)	.017
Invest in appearance	-.001 (.036)	-.002

Note. N= 248. \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 10. Regression of the Conformity to Feminine Norms: When you exercise, on average, how many minutes do you exercise per session?		
Independent Variable	B (SE)	$\beta$
Age	.089 (.050)	.125
Race	.030 (.068)	.031
Affiliated in Greek Life	.285 (.136)*	.151
Nice in Relationships	-.027 (.017)	-.120
Thinness	-.021 (.019)	-.082
Modesty	.005 (.029)	.012
Domestic	-.025 (.025)	-.068
Care for children	.010 (.018)	.043
Be in a romantic relationship	.031 (.022)	.102
Sexual fidelity	.007 (.015)	.032
Invest in appearance	-.033 (.020)	-.120

Note. N= 218. \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 11. Regression of the Conformity to Feminine Norms:  
Fitness/ Health Management (Exercise)

Independent Variable	B (SE)	$\beta$
Age	-.262 (.236)	-.077
Race	-.437 (.319)	-.093
Affiliated in Greek Life	-.194 (.645)	-.021
Nice in Relationships	.219 (.081)**	.207
Thinness	-.305 (.089)***	-.242
Modesty	.246 (.138)	.124
Domestic	.201 (.117)	.116
Care for children	.126 (.083)	.111
Be in a romantic relationship	-.050 (.106)	-.034
Sexual fidelity	-.063 (.073)	-.062
Invest in appearance	-.031 (.093)	-.023

Note. N= 218. \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 12. Regression of the Conformity to Feminine Norms:  
Appearance/ Weight Management (Exercise)

Independent Variable	B (SE)	$\beta$
Age	.473 (.217)*	.110
Race	.222 (.293)	.037
Affiliated in Greek Life	1.615 (.588)**	.142
Nice in Relationships	-.022 (.075)	-.016
Thinness	1.083 (.081)***	.685
Modesty	.102 (.127)	.041
Domestic	-.107 (.108)	-.049
Care for children	.016 (.077)	.011
Be in a romantic relationship	.234 (.096)*	.127
Sexual fidelity	-.058 (.067)	-.046
Invest in appearance	-.005 (.085)	-.003

Note. N= 218. \*p < .05, \*\*p < .01, \*\*\*p < .001.



Table 13. Regression of the Conformity to Feminine Norms:  
Socializing (Exercise)

Independent Variable	B (SE)	$\beta$
Age	.047 (.066)	.050
Race	-.113 (.089)	-.087
Affiliated in Greek Life	.012 (.179)	.005
Nice in Relationships	.040 (.023)	.135
Thinness	-.022 (.025)	-.064
Modesty	.028 (.039)	.052
Domestic	-.053 (.033)	-.111
Care for children	.026 (.023)	.084
Be in a romantic relationship	.044 (.029)	.110
Sexual fidelity	.011 (.020)	.040
Invest in appearance	-.025 (.026)	-.068

Note. N= 218. \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 14. Regression of the Conformity to Feminine Norms:  
Muscle Tone (Exercise)

Independent Variable	B (SE)	$\beta$
Age	-.003 (.052)	-.004
Race	-.059 (.070)	-.059
Affiliated in Greek Life	.319 (.140)*	.166
Nice in Relationships	.017 (.018)	.076
Thinness	-.015 (.019)	-.057
Modesty	.032 (.030)	.076
Domestic	.053 (.026)*	.143
Care for children	-.017 (.018)	-.069
Be in a romantic relationship	.032 (.023)	.103
Sexual fidelity	-.027 (.016)	-.127
Invest in appearance	.025 (.020)	.089

Note. N= 218. \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 15. Regression of the Conformity to Feminine Norms:  
Stress/ Mood Management (Exercise)

Independent Variable	B (SE)	$\beta$
Age	-.106 (.070)	-.104
Race	-.058 (.094)	-.041
Affiliated in Greek Life	-.326 (.189)	-.121
Nice in Relationships	.079 (.024)***	.251
Thinness	-.098 (.026)***	-.262
Modesty	.022 (.041)	.038
Domestic	.030 (.035)	.058
Care for children	.013 (.024)	.037
Be in a romantic relationship	-.009 (.031)	-.022
Sexual fidelity	.008 (.021)	.027
Invest in appearance	.007 (.027)	.019

Note. N= 218. \*p < .05, \*\*p < .01, \*\*\*p < .001.

## DISCUSSION

The purpose of this study was to examine how the level of conformity to gender stereotypes effect body image, eating behaviors, and exercise for women, and to attempt to provide support for the issue of gender stereotypes and how those stereotypes have serious implications on how individuals will live their lives.

The data presented here demonstrates that certain gender stereotypes were found to have a significant relationship to body-esteem, eating behaviors, and exercise patterns. Of particular interest is the support that was found for the stereotype of thinness as it relates to exercise. Krane et. al (2001) found that women tend to focus on beauty benefits of exercise rather than health benefits. The data from this study supports this by showing that thinness had a positive relationship with exercising for appearance and weight management, but it had a negative relationship with exercising for fitness and health management. This means that for example, women are more likely to exercise because they want to lose weight, than exercise in order to increase their cardiovascular health. It seems that women don't think about exercising to increase their endurance but rather to be thin, which shows that they do not exercise for health benefits, but rather appearance benefits, which are more unhealthy reasons for exercise. Additionally, a negative relationship emerged between the stereotype of thinness and exercising for stress/ mood management. When someone is exercising to be thin, this may be a stressful task for them. They may not be in a happy mood because they are so focused on being thin. When they do not reach this goal, they could become preoccupied with feeling like they are failing. This supports many of the findings of previous studies. Women have become convinced that their appearance will provide them with gains in society due to the gender stereotype that thin is equated to good for women, and fat is equated to bad and lazy.

Additional variables that were found to have an effect on exercise were Greek life affiliation, age, and the domestic stereotype. If someone is in Greek life, they tend to exercise for a longer amount of time than if someone is not in Greek life ( $p=.038$ ). I hypothesize that this result could have emerged for a couple reasons. First, being in Greek life enables an individual to live in a house with at least 50 people at Butler University. This may allow someone to have a better chance of going to the gym with someone else, which could increase the time they stay there. One would think that this would impact the socializing variable of exercise as well, but the socializing variable only had one statement: "to meet new people." This would not make sense in correlation to being in Greek life because one would be going to the gym with someone they already know. Furthermore, there are many student led workout classes at Butler. These classes are led by some students that are affiliated in Greek life. This could create interest in that student's fraternity or sorority members to attend their class, which on average last about 45 minutes. Additionally, it was found that the older someone is in this population that was tested, the more days they exercise. I hypothesize that as someone adjusts more to college, they are able to focus on exercise more because they aren't as overwhelmed by everything. Yes, as someone gets older their classes get more difficult, but they are more equipped to handle time management and organizational skills because it isn't their first year at college. Not everything is so new, and they may feel more comfortable with their schedule to find a time to work out.

Data provided implications of stereotype adherence on food preoccupation, dieting behavior and oral control. Data from this study presents that the more someone adheres to the pursuit of a thin ideal, the more preoccupied they are with food, the more they diet, and the more they focus on oral control. In contrast, people that are more invested in the thought of a romantic relationship have a negative relationship to food preoccupation, dieting behavior, and oral

control. They worry less about what they are eating. This variable does not indicate whether or not someone is in a romantic relationship, but just if they invest themselves in a romantic relationship. The questions from this stereotype focus on the importance of a romantic relationship to an individual. I predict that people that agreed with the statements of this stereotype are more likely to be in a relationship, and therefore may not feel the need to impress people because they are satisfied with their own relationship. They may not feel the need to strive to fit their gender stereotype because they are in a relationship with someone that they know cares about them already, decreasing their focus on poor eating behaviors. It would be interesting to see if that is true, by future research measuring how eating behaviors are effected based on whether or not someone is in a romantic relationship and how long they have been in one.

The desire for thinness had effects on all three variables; body-esteem, eating and exercise behaviors. This presents significant support that women view thinness as a way to prosper in society. Women seem to place greater value on thinness than any other gender stereotype based on this study. It can be argued that this is the most dangerous stereotype that has emerged for women. As of 2017, The National Association of Anorexia Nervosa reported that at least 30 million people of all ages and genders suffer from an eating disorder in the U.S. They have the highest mortality rate of any mental illness affecting all races and ethnic groups (National Association of Anorexia Nervosa, 2017). This is a serious issue in society, and part of the reason it exists is because people do not feel good enough about themselves due to the pressures that society places on them. Not everyone develops an eating disorder, but like this study shows, people do have negative body-esteem which is detrimental to someone's mental health. It is important to change the way society views individuals based on their outside

appearance. We need to focus more on what someone can provide based on their skills, mentality, and inside appearance. It is important to find a different meaning for “attractive” because the thin ideal that so many people view “attractive” now, is unattainable for most people. Never feeling like one is thin enough has significant implications on one’s mental, emotional and physical state of being. Yes it is important to be healthy, but thin does not equate to healthy. Sometimes, in the case of eating disorders, it equates to unhealthy.

In conclusion, an individual does not have to adhere to all the stereotypes in order to feel the effect from them, providing support for hypothesis 3. Based on all nine gender stereotypes, thinness had the greatest effect on body-esteem, eating behaviors, and exercise overall. However, contrary to part of hypothesis 4, investment in appearance had no effect on any of the outcome variables. The questions assessing this variable were more related to hair, makeup and other superficial appearance topics. Exercise and eating behaviors aim to change someone more physically, rather than cosmetically. This could be why there was no significant relationship found between investment in appearance and the variables in this study. It can be concluded since thinness did have such a significant effect on women, they feel a great pressure from their stereotype to work towards the thin ideal that society puts forth for them.

#### *Limitations and Future Research*

Despite the strengths of this study, there are a few limitations. First, the fact that the sample was all female college students that were majority white and in Greek life at Butler University is a limitation to the generalizability of these findings. This is not surprising because of the population that was being researched; however, it does not necessarily make the study generalizable to other groups of women. As Lowery (2015) found in her study, college students have the greatest concern over their body image (Lowery, 2015). This could be the reason for

significant results, making it important to study other populations to see if there are similar findings. Another important limitation related to the demographics of this study, was that it was unable to compare males and females. Only 22 males completed the survey. This is a small sample size, making it very difficult to find significant results that could be placed upon a bigger population. Students were given over a month to respond to this study, but participation from males was harder to obtain. Compared to the seven sororities that all received an email about the survey, there are only four fraternities on campus. Furthermore, males might not have participated in this study because of the topic at hand. Past research has revealed less participation by males. That could be due to the general stereotypes of males in total. Men are taught to focus less on appearance and feelings, and more on work and dominance. Males may not have found this topic interesting based on the title, resulting in them having no motivation to complete the survey.

It is also important to note that the Eating Attitudes Test is a self-report scale designed to assess the attitudes, behavior, and traits present in eating disorders particularly Anorexia Nervosa and Bulimia Nervosa. However; everyone that diets or focuses on what they eat have an eating disorder, and the purpose of this study was not to focus on eating disorders, but more broadly focus on overall eating behaviors. Even with these considerations, the EAT test was still related to gender stereotypes, making it a scale worthy of being used for more than just assessing eating disorders.

In the future, it would be important to gather a sample of males big enough to compare male gender stereotype adherence to women gender stereotype adherence in order to see how male and female stereotypes may impact body-esteem, eating and exercise behavior in similar and/ or different ways. Also, the conformity to gender stereotype scale was produced in 2003. It



would be of interest to see if now, 14 years later there are different stereotypes that women feel like they need to adhere to.

Loving one's own body in the world today is a very difficult feat, and accomplishing positive body image and healthy habits is complex, but altering gender stereotypes can be one important step to make positive strides in society.

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