Levels of Disordered Eating: Depression, Perfectionism, and Body Dissatisfaction

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ABSTRACT. The present study investigated levels of depressive symptoms, perfectionist tendencies, and body dissatisfaction in women with different levels of eating dysfunction. Eighty-nine women from a Northeastern university participated in exchange for course credit. Participants were categorized as having an eating disorder, eating dysfunction, or exhibiting normal eating attitudes and behaviors. Results revealed that those with maladaptive eating attitudes and behaviors displayed more body dissatisfaction (η² = .23) and depressive symptoms (η² = .08) than those with normal eating attitudes and behaviors. Women with a high fear of becoming fat displayed higher levels of body dissatisfaction (η²p = .36) and depressive symptoms (η²p = .08) than women less concerned about body fat. In short, women with eating disorders and dysfunctions exhibited similar levels of depressive symptoms, perfectionist tendencies, and levels of body dissatisfaction. The present study and many others have implied that the current classification system used to diagnose eating disorders does not encompass the range of severity that women with eating problems might experience and that a dimensional approach to diagnostic assessment is advised.

Eating disorders are a growing problem among women in western cultures. In a prevalence study on eating disorders in women, researchers found lifetime prevalence rates of 0.9% for anorexia nervosa, 1.5% for bulimia nervosa, and 3.5% for binge-eating disorder (Hudson, Hiripi, Pope, & Kessler, 2007). Gutzwiller, Oliver, and Katz (2003) found that 12% of women met the DSM-IV criteria for an eating disorder. However, these numbers did not include the number of women suffering from eating dysfunctions. Women with eating dysfunctions do not meet the diagnostic criteria for an eating disorder, yet still exhibit maladaptive symptoms commonly seen in those diagnosed with an eating disorder. For example, a woman who severely restricts her food intake and has an intense fear of becoming fat would not meet the strict diagnostic criteria for anorexia nervosa, but would still exhibit obvious maladaptive eating attitudes and behaviors.

Twenty-two percent of women surveyed in the United States displayed some symptoms of an eating disorder often without meeting the stringent criteria for an eating disorder diagnosis (Gutswiller et al., 2003). Of important note, women displaying symptoms of an eating dysfunction have been found to display similar difficulties compared to a clinical population of women diagnosed with eating disorders (Klemchuk, Hutchinson, & Frank, 1990). Garner, Olmsted, Polivy, and Garfinkel (1984) compared women classified as weight preoccupied, meaning that they were highly concerned about their weight, to women diagnosed with anorexia nervosa. No statistically significant differences existed between those classified as weight preoccupied and those diagnosed with anorexia nervosa on measures assessing bulimic symptoms, body dissatisfaction, and perfectionist tendencies.
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(Garner et al., 1984). These results indicated that women with eating dysfunctions likely engage in harmful dieting behaviors and report similar negative attitudes about their bodies compared to women diagnosed with an eating disorder. The differences among those diagnosed with an eating disorder, those who display symptoms of an eating dysfunction, and those with normal eating attitudes and behaviors need to be further explored. Comparisons could inform future changes to the classification system used to diagnose eating disorders.

Women who have an eating disorder or dysfunction often exhibit similar internalizing symptoms. Body dissatisfaction, perfectionism, and depression are common symptoms in women displaying maladaptive eating attitudes and behaviors. Due to this commonality, the role of body dissatisfaction, perfectionism, and depression in the development and/or maintenance of eating disorders and dysfunction warrant investigation.

Body Dissatisfaction
Past research has demonstrated a positive correlation between body dissatisfaction and maladaptive eating attitudes and behaviors (Cooley & Toray, 2001). More specifically, past research has found that college women who demonstrated high levels of body dissatisfaction tended to exhibit higher levels of concern about gaining weight and dieting, and reported more maladaptive eating attitudes and behaviors compared to those exhibiting lower levels of body dissatisfaction (Cooley & Toray, 2001). Interestingly, some research has reported that some groups of college women display particularly high rates of body dissatisfaction (Klemchuk et al., 1990), and others have reported overweight women displaying the most body weight dissatisfaction (Neighbors & Sobal, 2007). However, eating disorders such as anorexia nervosa or maladaptive eating behaviors such as restricting the amount of food consumed are often seen in women who are underweight or who have a normal weight. This has implied that other factors, in addition to body dissatisfaction, could lead a person to develop an eating disorder or eating dysfunction with symptoms such as restricting and/or purging. One factor is perfectionism.

Perfectionism
Research has found both direct and indirect relationships between perfectionism and eating disturbances. One study found that perfectionism positively correlated with eating disturbances (Chang, Ivezaj, Downey, Kashima, & Morady, 2007). Another study found a relationship between perfectionist tendencies and eating disorder symptoms only when the women in the study were overweight and endorsed low self-esteem (Vohs, Bardone, Joiner, Abramson, & Heatherton, 1999). Researchers have even found specific types of perfectionism to be predictive of specific problematic eating behaviors. Self-oriented perfectionism, a type of perfectionism in which an individual feels uneasy about making a mistake or doing something incorrect, was more predictive of anorexic symptoms (Vohs et al., 1999). Socially prescribed perfectionism, a type of perfectionism in which an individual feels they are expected by other people to meet certain standards, was predictive of bulimic symptoms (Welch, Miller, Ghaderi, & Vaillancourt, 2009). In short, past research has demonstrated that perfectionism represents a personality characteristic that is predictive of eating disturbances. Another factor related to eating disturbance is depressive symptoms.

Depression
Depressive symptoms are often comorbid with eating disorders. One study found that participants diagnosed with an eating disorder displayed clinical levels of depression, whereas participants with an eating dysfunction displayed mild levels of depressive symptoms, and those with no eating disorder or dysfunction displayed the lowest levels of depression (Gutzwiller et al., 2003). In addition, another study found that depression was a predictor of restricting attitudes regarding food, which is a predictor of restricting behaviors regarding food (Morris, Parra, & Stender, 2011).

An interesting relationship between depression and body dissatisfaction also exists. A study found that women who believed their body was bigger than it actually was were more likely to be depressed than women who accurately perceived their body weight (Harring, Montgomery, & Hardin, 2010). Further, overweight women with an accurate perception of their bodies were more likely to be depressed than overweight men with an accurate perception of their bodies (Harring et al., 2010). The fact that these women felt negatively about their bodies and displayed depressive symptoms put them at additional risk for engaging in maladaptive eating behaviors (Morris et al., 2011).

Past research has suggested that eating disorders and dysfunctions do not have a single causative explanation, but are rather the result of a multitude
of interacting factors. In short, when discussing eating disorders and dysfunctions, it is important to consider depressive symptoms, perfectionist tendencies, and body dissatisfaction because these factors seem to play a role in the development and maintenance of eating disorders and dysfunctions.

The purpose of the present study was to determine the levels of depressive symptoms, perfectionist tendencies, and body dissatisfaction in women with different levels of disordered eating. Participants were grouped based on their Body Mass Index (BMI) scores and scores on the Goldfarb Fear of Fat Scale (GFFS; Goldfarb, Dykens, & Gerrard, 1985). Participants were also grouped according to their score on the Eating Attitudes Test (EAT; Garner & Garfinkel, 1979), specifically into three categories (a) met criteria for an eating disorder, (b) met criteria for an eating dysfunction, or (c) exhibited normal eating behavior.

Method

Participants

Participants consisted of 89 women who were enrolled in a psychology class at a Northeastern university. Participants received course credit in exchange for their participation. The mean age of the participants was 20.37 years (SD = 5.76). Many participants identified as European American (89.90%; n = 72). African Americans comprised 7.9% of the sample (n = 7); 5.6% were Latina American (n = 5) and 5.6% described their ethnicity as either biracial or of another unlisted ethnicity (n = 5). Over half of the sample had a first-year class standing (n = 49), and 24.7% were sophomores (n = 22), 13.5% were juniors (n = 12), and 6.7% were seniors (n = 6). Table 1 lists the number and percentage of participants in each level of the three grouping variables.

Measures

GFFS. The GFFS is a scale that measures the fear of becoming fat (Goldfarb et al., 1985). The 10-item measure is answered using a scale of 1 (very untrue) to 4 (very true). Total scores range from 10 to 40, with higher scores indicating a greater fear of becoming fat (Goldfarb et al., 1985). Example items include “My biggest fear is of becoming fat,” “Becoming fat would be the worst thing that could happen to me,” and “I feel like all my energy goes into controlling my weight.” Goldfarb et al. (1985) found that women with a diagnosis of anorexia nervosa obtained an average score of 35.00 and a group of college women obtained an average score of 18.33 on the GFFS. Researchers found the measure to show high test-retest reliability and high internal consistency, with a Chronbach’s alpha of .85 (Goldfarb et al., 1985). The scale was able to successfully differentiate between women with anorexia nervosa and women with no eating disorder diagnosis (Goldfarb et al., 1985). For the current sample, the Chronbach’s alpha value was .81, reflecting adequate internal consistency.

EAT. The EAT is a test designed to measure behaviors and attitudes associated with anorexia nervosa (Garner & Garfinkel, 1979). The 40-item measure utilizes a Likert-type scale with possible responses ranging from 1 (always) to 6 (never). A total score can range from 40 to 240, and is derived from the sum of all items. Higher scores indicate more eating disordered symptoms. Example items include “find myself preoccupied with food,” “exercise strenuously to burn off calories,” and “have the impulse to vomit after meals.” Individuals who received a clinical diagnosis of anorexia nervosa scored higher than normal controls on the EAT, with anorexic patients obtaining a mean score of 58.90 and normal controls averaging 15.60 (Garner & Garfinkel, 1979). The EAT has shown excellent internal consistency, with an alpha of .94, and was found to display good predictive validity (Garner & Garfinkel, 1979). Chronbach’s alpha for the current sample was .84, reflecting good internal consistency.
Body Shape Questionnaire (BSQ). The BSQ is a scale used to assess concerns about body shape in women (Cooper, Taylor, Cooper, & Fairburn, 1987). The 34-item measure utilizes a Likert-type scale with possible responses ranging from 1 (never) to 6 (always). Total scores range from 34 to 204, with higher scores indicating more body dissatisfaction. Example items include “Have you been afraid that you might become fat (or fatter),” “Have you felt happiest about your shape when your stomach has been empty (e.g., in the morning),” and “Have you taken laxatives in order to feel thinner.” The measure was tested on women with and without an eating disorder. Women with an eating disorder scored higher than those without an eating disorder diagnosis (Cooper et al., 1987). Past research has found the BSQ to demonstrate moderate to high concurrent validity and moderate discriminant validity (Cooper et al., 1987). BSQ scores showed significant correlations between the total score of the Eating Attitudes Test and the Body Dissatisfaction subtest of the Eating Disorder Inventory (Cooper et al., 1987). Chronbach’s alpha for the present study sample was .81, reflecting adequate internal consistency.

Frost Multidimensional Perfectionism Scale (FMPS). The FMPS is a self-report measure designed to measure several components of perfectionism (Frost, Marten, Lahart, & Rosenblate, 1990). The 35-item measure utilizes a Likert-type scale that ranges from 1 (strongly disagree) to 5 (strongly agree). Total scores range from 35 to 175, with higher scores indicating more perfectionistic tendencies. Example items include “If I fail at work/school, I am a failure as a person,” “I hate being less than best at things,” and “Neatness is very important to me.” Past research found the FMPS to demonstrate good reliability, with an alpha of .90 for the whole perfectionism scale (Frost et al., 1990). The FMPS also shows good concurrent validity, correlating significantly with other perfectionism measures (Frost et al., 1990). Chronbach’s alpha was .90 for the present sample, reflecting excellent internal consistency.

Center for Epidemiologic Studies-Depressed Mood Scale (CES-D). The CES-D is designed to measure depressive symptoms with a focus on depressed mood in the general population (Radloff, 1977). The 20-item measure is answered using a scale of 0 (rarely or none of the time) to 3 (most or all of the time). Total scores range from 0 to 60, with higher scores indicating more depressive symptoms. Example items include “I was bothered by things that usually don’t bother me,” “I had crying spells,” and “I felt sad.” The CES-D was found to have a high level of internal consistency in clinical samples, with alphas of .85 and .90 (Radloff, 1977). The measure also has good concurrent validity as it has correlated well with other scales that are used to measure depressive symptoms (Radloff, 1977). For this nonclinical sample, Chronbach’s alpha was .84, reflecting good internal consistency.

Procedure
The investigation was approved by the university’s institutional review board. Participants were tested in a college classroom. Participants were read a set of instructions and completed an informed consent form. A copy of the informed consent form was provided to participants. Participants then completed a demographics questionnaire and the measures in paper and pencil format. The order in which the measures were given was counterbalanced to manage demand characteristics.

Once all the data was collected, participants were grouped in two ways. First, scores on the GFFS were used to group participants as being low, medium, or high in their fear of becoming overweight. A subject was grouped as low if their score was at or below a score of 18, which placed them at or below the 25th percentile for the sample. A subject was grouped as high if their score was at or above a score of 27, which placed them at or above the 75th percentile for the sample. Subjects whose scores were in between the 25th and 75th percentile were grouped as medium. In addition, BMIs were calculated in order to place participants in one of three groups: underweight, normal weight, or overweight.

Participants were also grouped based on their score on the EAT. Any subject who obtained a total score of 31 or higher was classified as meeting criteria for an eating disorder. This cutoff score was recommended by the authors of the EAT to correctly identify women with severe eating problems (Garner & Garfinkel, 1979). The present study also aimed to examine those with eating dysfunctions. The average score for the control group used in creating the EAT was 15.6 with a standard deviation of approximately nine (Garner & Garfinkel, 1979). In the present study, participants with a total score of 24 through 30 were classified as exhibiting eating dysfunctions. These numbers were chosen because a score of 24 through 30 is above the average score by approximately one standard deviation, but below the cut-off score of
31 used in prior research to classify individuals as eating disordered. Once subjects were grouped appropriately, participants were then compared on the CES-D, the BSQ, and the FMPS.

**Results**

**Data Analysis Plan**

Participants were first grouped based on their scores on the EAT, and compared on their levels of depressive symptoms, body dissatisfaction, and perfectionistic tendencies utilizing one-way Analyses of Variance (ANOVA). These analyses were pursued in order to determine whether statistically significant differences emerged across factors predictive of clinical outcomes in eating disorder patients. Accordingly, we compared participants displaying normal eating attitudes and behaviors, those displaying signs of eating dysfunction but not to the degree consistent with a diagnosis of an eating disorder, and those exhibiting symptoms consistent with an eating disorder diagnosis.

Next, participants were grouped on their BMI and fear of dramatic weight gain, and a series of two-way ANOVAs were analyzed in order to determine whether specific levels of these hallmark symptoms of eating disorders, both individually and in tandem, predicted higher levels of depressive symptoms, body dissatisfaction, and perfectionistic tendencies. Of note, results presented below were grouped based on whether the analyses were run to predict depressive symptoms, body dissatisfaction levels, or perfectionistic tendencies.

**Depressive Symptoms**

Participants were grouped based on scores obtained on the EAT. Based on their score, participants were placed into one of three categories: meeting criteria for an eating disorder, meeting criteria for an eating dysfunction, or displaying normal eating attitudes and behaviors. Participants were then compared based on their scores from the CES-D. The average scores obtained across community samples (Radloff, 1977).

A one-way ANOVA was run to determine if a significant difference existed among groups. Mean scores on the CES-D did differ significantly across the three conditions, $F(2, 88) = 3.99$, $p = .022$, $\eta^2_p = .08$. Tukey post-hoc testing revealed that participants meeting criteria for an eating dysfunction scored significantly higher than participants displaying normal eating attitudes and behaviors on the CES-D (see Table 2).

Groups were then formed based on participants’ GFFS score and participants’ BMI. Participants were placed into a category of low, medium, or high depending on their score on the GFFS, with high scores indicating a greater fear of fat. Participants were also classified as either underweight, normal weight, or overweight based on their BMI. Participants were then compared on scores on the CES-D.

In examining the main effect for GFFS scores, the mean CES-D score for participants scoring in the low category of the GFFS was 30.75 ($SD = 8.76$). The mean score for participants scoring in the medium category of the GFFS was 33.57 ($SD = 10.51$). The mean score for participants scoring in the high category of the GFFS was 39.25 ($SD = 10.57$). A two-way ANOVA was run to determine if significant differences existed among the groups. With alpha set at .05, a statistically significant main effect for GFFS scores emerged, $F(2, 87) = 3.64$, $p = .031$, $\eta^2_p = .084$. Participants in the high category based on the GFFS scored significantly higher on the CES-D than participants in the low category.

In examining the main effect for BMI, no significant differences were found among overweight, normal weight, and underweight women on the CES-D, $F(2, 87) = 0.05$, $p = .95$, $\eta^2_p = .001$. Further, no significant interaction effect was observed, $F(3, 87) = 2.35$, $p = .08$, $\eta^2_p = .082$.

**Body Dissatisfaction**

Participants were grouped based on scores obtained on the BSQ, with high scores indicative of body dissatisfaction. Participants were also classified as either underweight, normal weight, or overweight based on their BMI. Participants were then compared on their levels of body dissatisfaction.

**Perfectionistic Tendencies**

Participants were grouped based on scores obtained on the FMPS, with high scores indicative of perfectionistic tendencies. Participants were also classified as either underweight, normal weight, or overweight based on their BMI. Participants were then compared on their levels of perfectionistic tendencies.

**Table 2**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Eating Disorder</th>
<th>Eating Dysfunction</th>
<th>None</th>
<th>$p$</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES-D</td>
<td>39.00 ($SD = 10.15$)</td>
<td>42.86 ($SD = 13.91$)</td>
<td>33.18 ($SD = 9.84$)</td>
<td>.022</td>
<td>.08</td>
</tr>
<tr>
<td>BSQ</td>
<td>144.27 ($SD = 38.46$)</td>
<td>120.71 ($SD = 26.34$)</td>
<td>92.32 ($SD = 33.60$)</td>
<td>.000</td>
<td>.23</td>
</tr>
<tr>
<td>FMPS</td>
<td>108.55 ($SD = 14.38$)</td>
<td>117.86 ($SD = 25.05$)</td>
<td>107.08 ($SD = 24.05$)</td>
<td>ns</td>
<td>–</td>
</tr>
</tbody>
</table>

Note. CES-D = Center for Epidemiologic Studies-Depressed Mood Scale; BSQ = Body Shape Questionnaire; FMPS = Frost Multidimensional Perfectionism Scale. *Significant differences existed between groups. **Significant differences existed between groups.
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on the EAT. Based on their score, participants were placed into one of three categories: meeting criteria for an eating disorder, meeting criteria for an eating dysfunction, or displaying normal eating attitudes and behaviors. Participants were then compared based on their scores from the BSQ. The means (and SDs) for each group were as follows: those classified as eating disordered, 144.27 (SD = 38.46); those classified as having an eating dysfunction, 120.71 (SD = 26.34); and those with normal eating attitudes and behaviors, 92.32 (SD = 33.60). A one-way ANOVA was run to determine if significant differences existed among groups. Mean scores on the BSQ did differ significantly across the three conditions, $F(2, 88) = 12.58$, $p < .001$, $\eta^2 = .23$. Tukey post-hoc testing was used to determine where significant differences among the three groups in the population were present. These results revealed that participants classified as eating disordered scored significantly higher than participants with normal eating attitudes and behaviors on the BSQ (see Table 2).

Groups were formed based on participants’ GFFS score and participants’ BMI. Participants were placed into a category of low, medium, or high depending on their score on the GFFS, with high scores indicating a greater fear of fat. Participants were also classified as either underweight, normal weight, or overweight based on their BMI. Participants were then compared on scores on the BSQ.

In examining the main effect for GFFS scores, the mean BSQ score for participants scoring in the low category was 67.46 (SD = 21.92). The mean score for participants scoring in the medium category was 99.49 (SD = 26.75). The mean score for participants scoring in the high category was 131.36 (SD = 35.74). Compared to normative data from past studies, the mean scores for those displaying medium or high levels of fear of fat on the GFFS obtained scores that approximated the average obtained in clinical samples. A two-way ANOVA was run to determine if significant differences existed among the groups. With alpha set at .05, this difference was statistically significant, $F(2, 87) = 22.57$, $p < .001$, $\eta^2 = .36$. Participants in the high category based on the GFFS obtained significantly higher scores on the BSQ compared to participants who were in the low or medium categories. Participants in the medium category scored significantly higher than participants in the low category.

In examining the main effect for BMI, no significant differences were found among overweight, normal weight, and underweight women on the BSQ, $F(2, 87) = 2.44$, $p = .10$, $\eta^2 = .058$. Further, no significant interaction effect was observed, $F(3, 87) = 1.62$, $p = .20$, $\eta^2 = .058$.

Perfectionistic Tendencies

Participants were grouped based on scores obtained on the EAT. Based on their score, participants were placed into one of three categories: meeting criteria for an eating disorder, meeting criteria for an eating dysfunction or displaying normal eating attitudes and behaviors. Participants were then compared based on their scores from the FMPS. A one-way ANOVA was run to determine if a significant difference existed among the groups. Mean scores on the FMPS did not differ significantly across the three conditions, $F(2, 88) = 0.71$, $p = .495$, $\eta^2 = .016$ (see Table 2).

Groups were formed based on participants’ GFFS score and participants’ Body Mass Index (BMI). Participants were placed into a category of low, medium, or high depending on their score on the GFFS, with high scores indicating a greater fear of fat. Participants were also classified as either underweight, normal weight, or overweight based on their BMI. Participants were then compared on scores on the FMPS. A two-way ANOVA was run to determine if significant differences existed among groups. In examining the main effect for GFFS scores, no significant differences were found among women grouped as low, medium, or high on the GFFS when compared on the FMPS, $F(2, 87) = 1.73$, $p = .184$, $\eta^2 = .042$. In examining the main effect for BMI, no significant differences were found among overweight, normal weight, and underweight women on the FMPS, $F(2, 87) = 0.72$, $p = .491$, $\eta^2 = .018$. Further, no significant interaction effect was observed, $F(3, 87) = 1.54$, $p = .211$, $\eta^2 = .055$.

Summary

The results of the present study suggested differences between college women with some degree of eating dysfunction and women with normal eating attitudes and behavior. Women classified as eating disordered reported significantly more body dissatisfaction than women with normal eating attitudes and behaviors. Further, women with higher levels of fear of becoming fat reported higher levels of body dissatisfaction than women with lesser fears of becoming fat. These results indicated a relationship between maladaptive eating attitudes and behavior and body dissatisfaction. Depressive symptoms were also related to eating attitudes and behavior.
Women who displayed symptoms of an eating dysfunction showed significantly more depressive symptoms than women with normal eating attitudes and behavior. Further, women with a high fear of becoming fat displayed more depressive symptoms than women with a low concern of becoming fat. This study also aimed to examine differences between women classified as eating disordered and as having an eating dysfunction. The lack of significant differences between women classified as having an eating disorder or eating dysfunction on any outcome measure used in this study indicated that women with an eating disorder or eating dysfunction show similar levels of body dissatisfaction, depressive symptoms, and perfectionistic tendencies. In short, the results suggested that women with an eating disorder and dysfunction share similar pathologies that might contribute to the development and/or maintenance of negative eating attitudes and behavior.

**Discussion**

Past research has found that women diagnosed with an eating disorder and women displaying symptoms of an eating dysfunction show high levels of body dissatisfaction, weight preoccupation, perfectionistic tendencies, and maladaptive eating attitudes and behaviors (Garner et al., 1984; Klemchuk et al., 1990). The present study compared women with an eating disorder to women with an eating dysfunction on these factors, taking them into account simultaneously.

The present study revealed that women with some degree of maladaptive eating attitudes and behaviors reported higher levels of depressive symptoms and body dissatisfaction. Due to this finding, it is thought that depressive symptoms and body dissatisfaction play a role in the development and/or maintenance of maladaptive eating attitudes and behaviors. Eating disorders and dysfunctions can have a severe and damaging impact on a person’s life. Therefore, identifying factors that contribute to the development and/or maintenance of negative eating attitudes and behaviors is essential.

Although it is clear depressive symptoms do play a role in the development and/or maintenance of maladaptive eating attitudes and behaviors, it is unclear as to whether depression precedes or follows women engaging in negative eating behaviors. It might be that women who have high levels of concern about their body have a fear of gaining weight and tend to frequently think of ways to prevent weight gain. This frequent worry might inhibit women from engaging in positive social experiences. The social isolation and loneliness that follow might cause subsequent depressive symptoms. Another possibility is that women who have a persistent fear of gaining weight might put much of their efforts into worrying about and preventing weight gain, therefore neglecting potentially fulfilling activities. Women exhibiting depressive symptoms might even apply their negative thoughts to their body (Sides-Moore & Tochkov, 2011). Because feelings of hopelessness and worthlessness often accompany depression (American Psychiatric Association, 2000), if a woman also feels dissatisfied with her body, she might feel hopeless about trying to improve her body to meet her subjective standards. Therefore, she might take extreme measures such as engaging in maladaptive eating behaviors in the hopes of improving her body satisfaction and lessening her feelings of hopelessness and worthlessness. In short, it is clear that depressive symptoms do play a role in women displaying maladaptive eating attitudes and behaviors, and represents a crucial symptom to assess in the treatment of eating disorders and dysfunctions in women.

The present study also found a significant difference in mean scores between fear of becoming fat and body dissatisfaction. This finding suggests that body dissatisfaction also plays a role in the development and/or maintenance of maladaptive eating attitudes and behaviors in women with an eating disorder or dysfunction. It is thought that body dissatisfaction acts as a precursor to women engaging in both eating disordered and dysfunctional behaviors such as purging, restricting food, or chronic dieting in the attempt to reduce feelings of dissatisfaction with one’s body (Cooley & Toray, 2001).

Results from the present study indicated that women with eating disorders and eating dysfunctions suffer from similar internalizing symptoms that can be contributing to their maladaptive eating behaviors. From this, it is thought that the diagnosis of eating disorders might need to change from a categorical disorder to one diagnosed on a dimension. After all, women who were classified as eating disordered did not differ significantly from women classified as exhibiting an eating dysfunction on a single outcome measure in the present study. This was an important finding because it supports the idea that women with eating dysfunctions show similar levels of maladaptive thoughts.
and behaviors as women classified as eating disordered. The artificial distinction between disorder and dysfunction requires further analysis.

Limitations
Sample characteristics might have limited the applicability of study results to the population of college women due to the sample consisting of mostly Whites and women of a first-year class standing. Further, the sample consisted of a small number of underweight women. It is thought that due to such a low number of underweight women characteristics and behaviors of underweight women might not have been adequately represented. However, the sample constituted actual college-aged women, meaning results could be indicative of actual eating attitudes and behaviors of college women.

Another possible limitation might have been the BMI classification system. Although BMI is easy to calculate and is widely used, BMI calculation does not take into account all factors necessary to place a person into the correct weight category such as muscle and bone mass (Department of Health and Human Services Center for Disease Control and Prevention, 2011).

Potential group placement problems also existed through the use of the EAT. Although the EAT was designed to measure behaviors and attitudes associated with anorexia nervosa, 45.5% of the women classified as eating disordered were overweight (n = 5). This was a serious limitation because it calls into question whether the EAT actually is able to differentiate among women with an eating disorder, dysfunction, or those who display normal eating attitudes and behaviors. It is thought that, in the present study, the EAT might have been assessing dieting behaviors or picking up on higher levels of body dissatisfaction. It is also possible that women in the overweight group were trying to lose weight and were engaging in weight loss behaviors that the EAT labeled as eating disordered.

In regard to BMI classification, women in the present study might not have reported their actual weight due to social desirability. It is also possible that women did not know their exact weight or height, which is necessary for calculating BMI. Due to body weight estimates being affected by social desirability factors, it is also possible women answered questions in a way to make themselves appear more health conscious or concerned about their weight than they actually were.

Future Directions
Due to the severity and negative effects of eating disorders and dysfunctions on women, further research in this area is necessary. Future research should look at personality characteristics that leave women at risk for developing an eating disorder or dysfunction. Doing so could add to knowledge on the types of personality characteristics and behavioral tendencies that are predictive of negative eating behaviors, and which need to be addressed in order to maximize treatment effects. For instance, although the present study did not find significant differences related to perfectionism, past research has found perfectionism to positively correlate with eating disturbance (Chang et al., 2007). Future research should examine the role of personality characteristics in the development and maintenance of eating disorders and dysfunctions.

Researchers should also more closely examine the role of depression in eating disorders and dysfunctions. Research has been unclear as to whether depressive symptoms are a cause of maladaptive eating attitudes and behaviors or whether depressive symptoms are a result of eating disorders and dysfunctions. It is possible that the order may vary for each person, yet investigators should aim to uncover potential moderators of the relationship between depressive symptom onset and symptoms of eating disorders and dysfunctions.

Future research should also examine eating disorders and dysfunctions among individuals from different cultures and people of different sexes and ages. It might be that different cultures hold different body ideals. A culture that does not place a strong value on a thin body might have lower rates of eating disorders and dysfunctions, or cultures with different body ideals might differ on the types of eating disturbances exhibited. Research might also benefit from exploring age as a factor in eating disturbances. Much of the eating disorder research to date was conducted with high-school-aged and college-aged women. Examining how age influences eating disorder and dysfunction symptoms warrants investigation. Future research should also examine the role of biological sex and cultural factors in eating disorders among women.
on eating disorders and dysfunctions. Although eating disorders are more common in women, men also experience eating disorders and dysfunctions (Hudson et al., 2007) and might present different symptomology.

Finally, future studies should continue to compare women with eating disorders to women with eating dysfunctions, with the hope of finding support to make eating disorder diagnoses dimensional rather than categorical. Rather than using a categorical system of classification such as women being classified as either having an eating disorder or not, women could be assessed and treated on a continuum of severity. With a dimensional approach to eating disorders, varying degrees of severity could be better assessed, and women with varying degrees of symptomology could be treated. In short, by using a dimensional approach in classifying eating disorders, targeted treatments could be developed for individuals displaying differing levels of eating disorder severity.

Conclusion

The present study supported the idea that women with an eating dysfunction suffer from similar problems as women with an eating disorder. Women with an eating dysfunction show maladaptive eating attitudes and behaviors, but fail to meet the strict diagnostic criteria for an eating disorder. This might hinder their ability to receive the appropriate diagnosis and treatment for their problems. The DSM-5 (American Psychiatric Association, 2013) has addressed this issue by changing some of the diagnostic criteria for eating disorders. For example, a woman who showed all the symptoms of anorexia nervosa except amenorrhea was previously unable to receive an anorexia nervosa diagnosis. With the changes made in the DSM-5, women no longer have to experience amenorrhea to receive a diagnosis of anorexia nervosa. This change has allowed more people to receive an eating disorder diagnosis and therefore the appropriate treatment.

Past research has suggested that depression and body dissatisfaction play a role in eating disturbance. Results from the present study indicated that women with an eating disorder and dysfunction show similar levels of depression and body dissatisfaction. Whether body dissatisfaction and depressive symptoms are causative factors or the result of maladaptive eating attitudes and behaviors is unclear, and is an issue worthy of future investigation. Regardless, it is clear that women with some level of eating disturbance show higher levels of depression and body dissatisfaction than women with normal eating attitudes and behaviors. This finding implies that body dissatisfaction and depression play a role in the development and/or maintenance of eating disorders and dysfunctions. These two groups of women might need similar treatment interventions to address their maladaptive eating attitudes and behaviors. Further, women with an eating dysfunction should receive treatment to prevent their symptoms from developing into an eating disorder. Due to the similarities between women with an eating disorder and dysfunction, it is thought that a categorical approach for diagnosing eating disorders might not be the most effective in addressing and treating women with maladaptive eating attitudes and behaviors. It is thought that eating disorders would be better diagnosed on a continuum so that all severity levels of eating dysfunction can receive the appropriate level of treatment.

Eating disorders and dysfunctions are an important topic of study because of the severe impact an eating disturbance has on an individual’s life. Due to the negative effects of eating disorders and dysfunctions, women with all levels of eating dysfunction should receive a form of treatment to address their negative attitudes and behaviors regarding eating and their bodies. Understanding what factors contribute to the development and maintenance of maladaptive eating attitudes and behaviors is essential to treating eating disorders and dysfunctions.

References

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