

THINSPIRATION AND FATSPIRATION ON BODY DISSATISFACTION:  
THE ROLES OF SOCIAL COMPARISONS AND ANTI-FAT ATTITUDES

by

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## ABSTRACT

Thinspiration refers to images of extremely thin women meant to inspire and motivate viewers to engage in or maintain disordered eating. Fatspiration consists of images of overweight to morbidly obese women meant to warn viewers about what could happen to them if they do not engage in disordered eating behaviors. Both have the same goal: to achieve the thin-ideal body that is not only perpetuated by the media but is also practically impossible for the average women to achieve by healthy means. For this study, female undergraduates ( $n = 66$ ) reported on social comparisons, sociocultural pressures, anti-fat attitudes, internalization of body ideals, and disordered eating behaviors. They were then randomly assigned to view either thinspiration or fatspiration images before completing a body dissatisfaction scale. No differences in body dissatisfaction were found between exposure groups. For both groups, upward appearance-based social comparisons and disordered eating symptomatology were positively correlated with body dissatisfaction. For the thinspiration group only, internalization of the thin ideal was positively correlated with body dissatisfaction, and for the fatspiration group only, anti-fat willpower perception was positively correlated with body dissatisfaction. Overall, the present findings suggest thinspiration imagery increases body dissatisfaction in those who internalize the thin ideal, whereas fatspiration imagery increases body dissatisfaction in those with greater anti-fat attitudes. Other than these differences, fatspiration is similar to thinspiration in terms of its effect on body dissatisfaction and therefore warrants further investigation. This research adds to the

evidence of negative consequences of viewing thinspiration material, while forming the foundation of evidence that viewing fatspiration material may also result in negative consequences.

## I. INTRODUCTION

Body image is a complex construct consisting of affective, evaluative, cognitive, behavioral, and perceptual components (Keery et al., 2004; Sarwar et al., 1998; 2002). Body dissatisfaction, an element of body image disturbance, is the negative subjective evaluations of one's own body in terms of their figure, weight, and/or specific body parts and is thought to be the result of sociocultural pressures to be thin (Keery et al., 2004; Thompson et al., 1999). This is especially prevalent in women in western cultures where there is a high prevalence of body dissatisfaction (Crowther & Williams, 2011). The reason why body dissatisfaction is so prevalent in women in western cultures is because women are more objectified than men which can lead to greater body surveillance. This means that women are at a greater risk for body dissatisfaction and developing eating disorders compared to men who are not placed under the same level of scrutiny (Frederick et al., 2007). Due to this increased risk, the majority of research has focused on female body dissatisfaction. Body ideals (Frederick et al., 2007) and presentation of body dissatisfaction (Neighbors & Sobal, 2007) also differ between men and women, so it makes sense to study them separately. Women experience pressure to conform to a thin-ideal while men experience pressure to conform to powerful/masculine body ideal (Frederick et al., 2007). Much of the research on body image disturbance in women has focused on populations with clinically-diagnosed eating disorders and/or body dysmorphic disorder. Still, body image disturbance is considered to be a normal aspect of life in developed westernized societies and is experienced even in healthy individuals (Paeratakul et al., 2002), so much so that it has been coined as "normative discontent" (Rodin et al., 1984).

## **Social Comparisons and Internalization of Body Ideals**

One of the most commonly referenced theories for the etiology of this widespread dissatisfaction is the Social Comparison Theory (Festinger, 1954). This theory speculates that humans are naturally driven to evaluate themselves and try to understand where they stand in comparison to those around them (Festinger, 1954). There are two established forms of social comparisons: upward comparison and downward comparison. Upward comparison is the act of comparing oneself to another who is evaluated as better in the target area of comparison; in this case the target area is related to esthetics, and is believed to result in a decrease in overall mental well-being (Wheeler & Miyake, 1992) and in a decrease in body satisfaction in women (Marengo et al., 2018). Downward comparison takes place when comparing oneself with another who is evaluated as worse off in the target area of comparison and is believed to result in positive outcomes such as an increase in self-esteem or body satisfaction (Thomas et al., 2017). These comparisons will naturally occur with appearance-based attributes which are the only aspects readily available on social media.

College-age women engage in more upward comparisons than downward comparisons which is shown to result in body dissatisfaction, is one of many risk factors for the development and maintenance of eating disorders (Myers & Crowther, 2009). In general, college age women are already at an elevated risk for the development of eating disorders due to perceptions of isolation, anxiety, body dissatisfaction, eating disturbances, and chronic dieting and exercise behaviors just to name a few factors. As many as 61% of women in college report disordered eating behaviors and 20% report having some form of an eating disorder (Mazzeo, 1999). Even without a diagnosable

eating disorder, there are many behavioral characteristics that are expressed such as excessive dieting and exercise. It has been argued that the reason behind this is also due to social comparisons to thin-ideal images.

Traditional media and social media often portray images of ultra-thin women which creates and perpetuates a difficult, if not impossible, ideal for the average woman to achieve, in turn, affecting social comparison processes. Indeed, women who use photo-centric social media platforms such as Snapchat or Instagram have more body image concerns and internalization of body ideals (Marengo et al., 2018). Cultivation theory (Gerbner et al., 1994) explains this as a result of the repeated and life-long exposure to "consistent media portrayals" (e.g., thin-ideal media), which results in increased internalization and normalization of this ideal in women. Thus, the repeated pairing of a thin figure with positivity and success may lead to unrealistic expectations and body dissatisfaction in women.

Social media may affect what is perceived as desirable and popular by consistently presenting ideals, including body ideals, regardless of how obtainable these ideals are for the average consumer (Bandura, 2001). This claim has been applied to many domains but the application to body ideals has arguably received the most research attention. The research, however, has not demonstrated a consistent outcome of viewing idealized imagery. Two meta-analyses showed that women who view thin-ideal body images in the media have unrealistic body shape aspirations and are also dissatisfied with their bodies (Barlett et al., 2008; Grabe et al., 2008), but a previous meta-analysis concluded that longer exposure to thin-ideal imagery and exposure to images of overweight women results in slightly greater body satisfaction (Holmstrom, 2004).

However, it has been shown that duration of use is not as important as a women's interactions as far as predictive ability for body dissatisfaction (McLean et al., 2015; Meier & Gray, 2013). Because of this, it is possible that social comparison processes are more important than how long the image is shown to the viewer and may explain this discrepancy. What is still unclear is why viewing images of overweight women have been found to have a positive effect on body image in women and how appearance-based comparisons facilitate this.

The extent to which a woman engages in appearance-based social comparisons appears to play a role in the relationship between viewing thin-ideal media and body dissatisfaction. Thin-ideal media appears to have a substantial effect on social comparisons and, therefore, on body dissatisfaction. Of particular interest is thinspiration which is an extreme form of thin-ideal imagery that is openly available on the internet and is used most by eating disorder populations (Csipke & Horne, 2007). Thinspiration is a combination of the words thin' and 'inspiration' and is used to describe any images or text phrases meant to inspire and motivate viewers to engage in or maintain disordered eating behaviors to achieve the idealized thin bodies depicted. Thinspiration often depicts images of women that have text-overlay, captions, food, and often focus on a singular body (e.g., collarbones, legs, torso etc.). Thinspiration is a major part of what is known as 'pro-ana' which stands for pro-anorexia. It is an online community that idealizes the thin body ideal and promotes maladaptive eating behaviors through behavioral and emotional support for the onset and continuation of extreme dieting and exercise (Haas et al., 2011). Some sub-communities claim to be pro-recovery; however, at its core, these sites are not meant to promote or help with recovery as they are encouraging viewers to adopt

maladaptive eating behaviors as a lifestyle choice whether it is intentional or not (Csipke & Horne, 2007). Exposure to these extreme messages idealizing eating disorders may result in comparisons between the women in the images and the viewer's own weight/body and eating behaviors that could potentially result in body dissatisfaction and eating disorder symptomology. Pro-ana content can be broken up into several different sub-categories, but the one that makes up the majority of this community is thinspiration, with 85% of pro-Ana sites catering to this content (Borzekowski et al., 2010).

Three studies tested the immediate effects of short-term exposure to prototypic pro-Ana websites that contained thinspiration, pro-ana religious scriptures, restrictive dieting tips and tricks. Those who viewed these sites were found to have higher body dissatisfaction compared to control groups (Bardone-Cone & Cass, 2006; 2007; Delforterie et al., 2014). Further, in female college students with a BMI of at least 18 and no history of an eating disorder, viewing a real pro-ana website for 45 minutes on two separate occasions resulted in a decrease in food consumption over a one-week period (Jett et al., 2010). Other studies also using real pro-ana sites have found decreases in food consumption, along with increased body dissatisfaction, restrictive dieting, and bulimic symptomology (Harper et al., 2008; Pryslopski, 2011). These findings using pro-ana content contradict Holmstrom's (2004) meta-analysis since prolonged exposure was found to result in increased body dissatisfaction and the effects of this thin-ideal media was also found to have a significant effect. Appearance-based social comparisons might be able to explain this discrepancy since thinspiration is an extreme form of the thin ideal. If the viewer has internalized the thin ideal and engages in upward appearance-based

social comparisons, then this could explain the decrease in body dissatisfaction that is commonly found in studies looking at the effects of thinspiration.

### **Anti-fat Attitudes**

Fear has been implicated as a key motivational factor in the development and maintenance of body image and eating disturbances in women. Fear of fat and eating disorder symptomology exists among women from various cultural backgrounds, and frequency of weight-loss dieting is primarily due to a fear of fat rather than a manifestation of cultural body ideals (Dalley et al., 2009; Shaw et al., 2004).

Furthermore, fear of being overweight has been found to be associated with a motivation towards dieting more so than hope of achieving a thin body (Dalley & Buunk, 2011).

Fear of fat is rooted in weight-based stigmatism which is the often-negative bias towards a person based on their weight not meeting social norms (Tomiya et al., 2018). Social media provides viewers with information on the acceptability of behavior and physical characteristics by modeling standards and through vicarious reinforcement and punishment (Fouts & Burggraf, 2000). Not only is there a lack of diversity in body types in the media where the vast majority is thin (Himes & Thompson, 2012) but the ridicule of heavier women is often met with a positive reaction in terms of more 'likes' and positive comments (Fouts & Burggraf, 2000). This constant positivity paired with thinness and negativity paired with fatness may lead to an increase of body dissatisfaction and internalization of the thin-ideal consistent with sociocultural models of body image (Thompson et al., 1999).

A manifestation of this fear of fat and weight-based stigmatization also exists within the pro-ana community and is known as fatspiration. Fatspiration consists of

images of overweight to morbidly obese women meant to warn viewers about what 'will' happen if they eat and is used as a reverse trigger to elicit disgust and weight loss through starvation methods (Bert et al., 2016). Fatspiration only appears in approximately 13% of sites that include thinspiration (Borzekowski et al., 2010) but despite its relatively small presence within this community, it has garnered a considerable amount of attention not only from those within the community but also many internet users who are not in the pro-ana community. The recent use of TikTok videos using fatspiration, and to a lesser extent thinspiration, on Twitter (@caloire, 2020) has brought a lot of negative attention to Eating Disorder Twitter (edtw) and to a lesser extent other pro-ana and eating disorder communities on other platforms. There are those within edtw who are arguing against TikTok users posting thinspiration and fatspiration content (@dietlix, 2020; @somehowatypical, 2020). However, this continues to be an issue across social media platforms. Both thinspiration and fatspiration derive their content from all forms of media, and social media has created a shift in the available content for these sites. Whereas before the majority of available thinspiration and fatspiration were celebrities and models, now there is a limitless supply of images because they have been posted to social media and can be taken for these eating disorder sites to use for content.

The effect of viewing fatspiration is largely unknown as there is no empirical research focusing exclusively on this domain. Much in the same way that thin-ideal images have been found to have inconsistent results with thinspiration, it is possible that findings on the effects of viewing images of overweight women do not neatly reflect the effects of fatspiration on body dissatisfaction.

## **Purpose and Hypotheses**

The previously reviewed literature reveals that thinspiration and thin-ideal media are associated with body dissatisfaction and maladaptive eating behaviors. What is still unknown is whether fatspiration is also associated with such deficits and to what extent upward and downward social comparison processes lead to increased body dissatisfaction following exposure to this media. The current study used an experimental design using image type as the independent variable with two levels: thinspiration and fatspiration. The dependent variable was body dissatisfaction. The following factors were used as predictor variables: internalization of the thin ideal, internalization of the muscular ideal, media influence, anti-fat attitudes, upward appearance-based social comparisons, downward appearance-based social comparisons, and disordered eating behaviors.

It was hypothesized that exposure to thinspiration will result in greater body dissatisfaction compared to exposure to fatspiration based on cultivation theory (Gerbner et al., 2002). It was also hypothesized that upward appearance-based social comparisons, internalization of the thin-ideal, and greater eating disorder symptomology would be related to increased body dissatisfaction after viewing thinspiration images. Further, it was hypothesized that fatspiration will have a greater effect on body dissatisfaction for those with greater anti-fat attitudes, in particular a fear of fat. Combining these two predictions, it was hypothesized that internalization of the thin ideal and anti-fat attitudes will result in greater body dissatisfaction.

## II. METHOD

### Participants

This procedure and the following materials were approved by the Institutional Review Board at Texas State University. Participants were recruited through the Department of Psychology's participant pool (SONA) at Texas State University. This participant pool includes undergraduate students enrolled in introductory psychology courses requiring students to complete a research participation requirement for the course. Participants received one research credit toward this requirement in exchange for their participation in this study.

A total of 93 participants from this participant pool completed the study; 46 of these participants were in the fatspiration group and 47 were in the thinspiration group. Data from 17 participants were removed because the participants did not identify as female. Data from an additional 10 participants were removed due to failing attention checks. The remaining 66 participants provided the data that were used in final analyses. Of these participants, 42.4% identified as Hispanic, 74.2% identified as White, 15.2% identified as other, 7.6% identified as Black, and 3.0% identified as Asian. The mean age of participants was 19.28 years ( $SD = 2.71$ ). Based on self-reported height and weight, the average body mass index (BMI) of participants was 24.78 kg/m<sup>2</sup> ( $SD = 5.35$ ), which is within the normal range. The participants were separated into two groups; 37 participants viewed thinspiration while 29 participants viewed fatspiration.

### Procedure

Participants completed an online survey via Qualtrics that asked participants to read over a consent document, and participants who provided their consent continued on

to the survey. The participants were asked about basic demographic information and asked to provide their weight and height. Using the reported weight and height, BMI scores were calculated for each participant. Self-reported BMI and measured BMI are highly correlated ( $r = 0.65-0.96$ ) and highly concordant ( $\rho_c = 0.65-0.95$ ) with near perfect agreement in weight classification (Lipsky et al., 2019). After completing the demographic questionnaire, participants completed questionnaires assessing the predictor variables: internalization of ideals, appearance-based social comparisons, anti-fat attitudes, and disordered eating behaviors. They were then randomized into either the thinspiration or fatspiration group and viewed 10 image depicting thin female torsos or overweight female torsos. Participants were able to look through these images at their own pace. Finally, participants completed a measure of body dissatisfaction, as well as a manipulation check where they were asked to identify which category of images they were previously shown.

## **Materials**

### ***Body Dissatisfaction Scale***

The Body Dissatisfaction Scale (Mutale et al., 2016) includes separate pictorial scales for men and women, each being comprised of nine body types ranging in size. Only the women body scale was used in this study. Participants were asked to select the figure that reflects their current body type and to then select the figure that reflects their ideal body type, with the discrepancy between these two serving as the measure of body dissatisfaction. This scale has good construct validity and test-retest reliability (Mutale et al., 2016). The overall Cronbach alpha for the current study was  $\alpha=0.495$ .

### ***Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4)***

The SATAQ-4 (Schaefer et al., 2015) includes five subscales, three of which were used in the current study: internalization of the thin ideal (e.g., "I want my body to look very thin"), internalization of the muscular/athletic ideal (e.g., "I think a lot about looking athletic"), and cultural pressures from the media (e.g., "I feel pressure from the media to look thinner"). This scale has been found to have good reliability and convergent validity within a sample of women from the United States (Schaefer et al., 2015). The Cronbach alpha for internalization of the thin ideal was  $\alpha=0.836$ ; internalization of the muscular/athletic ideal  $\alpha=0.907$ ; cultural pressures from the media  $\alpha=0.945$ .

#### ***Upward Physical Appearance Comparison Scale (UPACS)***

The UPACS (O'Brian et al., 2009) is a 10-item scale used to measure upward appearance-based social comparisons (e.g., "I compare my body to people who have a better body than me"). It uses a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". Scores range from 10 to 50; higher scores indicate higher levels of upwards appearance-based social comparison. The scale was found to have good test-retest reliability and validity in a university population (O'Brian et al., 2009). The overall Cronbach alpha for the current study was  $\alpha=0.952$ .

#### ***Downward Physical Appearance Comparison Scale (DPACS)***

The DPACS (O'Brian et al., 2009) is an 8-item scale used to measure downward appearance-based social comparisons (e.g., "I compare myself to people less good looking than me"). It uses a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". Scores range from 10 to 80; higher scores indicate higher levels of downwards appearance-based social comparison. The scale was found to have good test-retest reliability and validity in a university population (O'Brian et al., 2009). The overall

Cronbach alpha for the current study was 0.960, indicative of a high level of internal consistency within this sample.

### ***Anti-fat Attitudes Questionnaire (AFA)***

The AFA (Crandall, 1994) is a 13-item questionnaire that measures dislike of fat individuals (e.g., "I don't really like fat people much"), fear of fat (e.g., "I feel disgusted with myself when I gain weight"), and willpower (e.g., "Some people are fat because they have no willpower"). All three subscales use a 9-point Likert scale ranging from very strongly disagree to very strongly agree. This scale has good content validity, internal consistency, convergent validity, and discriminant validity (Lacroix et al., 2017). The Cronbach alpha for dislike of fat individuals was  $\alpha=0.875$ ; fear of fat was  $\alpha=0.939$ ; willpower perceptions was  $\alpha = 0.781$ , indicative of moderate to high levels of internal constancy on these measures.

### ***Eating Attitudes Test (EAT-26)***

The EAT-26 (Garner & Garfinkel, 1982) is a 26-item scale that is used to measure disordered eating behaviors in both clinical and non-clinical populations. It has items about dieting (e.g., "Engage in dieting behavior"), bulimia (e.g., "Vomit after I have eaten"), food preoccupation (e.g., "Find myself preoccupied with food"), and oral control (e.g., "Avoid eating when I am hungry"). This scale uses a 6-point Likert scale ranging from "always" to "never". The EAT-26 has high test-retest reliability and validity across multiple populations (Garner et al., 1982; Mintz & O'Halloran, 2000). The Cronbach alpha was 0.893 in the current study.

## ***Stimuli***

A total of 60 images that were originally taken from various online sources were used to be normed as either: heavy-set, normal, or thin. Images were cropped to measure 350 by 534 pixels and only torsos were visible. A total of 382 female students attending Texas State University (234 White/Caucasian females, 144 Hispanic/Latina females) participated in rating the photos using a 5-point Likert scale. White/Caucasian females rated images from the heavy-set category as more overweight than Hispanic/Latina participants ( $M = .26, SD = .68$ );  $t(376) = 3.36, p < .001$ . Images of heavy bodies in the norming set with mean ratings greater than or equal to 4.2 (top 25% highest overweight ratings) and images of thin bodies with mean ratings less than or equal to 2.3 (lowest quartile overweight ratings) were chosen for use as stimuli in the current study, yielding 20 images total (10 depicting thin female torsos and 10 depicting overweight female torsos).

With data from the current study, a cross-tabs chi-square analysis revealed that the manipulation generally had its intended effect,  $\chi^2 = 33.77, p < .001$ , with 0% of the participants in the thinspiration group indicating that the images were of overweight women, and only 17% of the participants in the fatspiration group indicating that images were of thin women.

## **Statistical Analyses**

Preliminary independent sample *t*-tests were conducted to assess whether the experimental groups differed on any of the demographic (age and BMI) or predictor variables (internalization of the thin ideal, internalization of the muscular ideal, internalization from the media, dislike of fat individuals, fear of fat, willpower

perceptions, upwards appearance comparisons, downwards appearance comparisons, and eating attitudes). A final independent sample *t*-test was conducted to assess whether the experimental groups differed on body dissatisfaction that was assessed after presentation of the images. Next, Pearson correlation analyses were conducted to assess whether any of the predictor variables were associated with body dissatisfaction – for all participants, for those in the thinspiration group, and for those in the fatspiration group. Finally, to assess whether these relationships significantly differed between the two conditions, a series of regression analyses were conducted. Regression was chosen because the predictor variables were all continuous. For each analysis, body dissatisfaction was the dependent variable. The independent variable that was entered was the product of the condition variable (thinspiration = 0, fatspiration = 1) and the mean-centered predictor variable.

### III. RESULTS

As shown in Table 1, the preliminary independent sample *t*-tests revealed no significant differences on the demographic or predictor variables between participants in the two conditions (thinspiration vs. fatspiration images). Thus, random assignment was effective at avoiding any systematic group differences at the outset of the experiment. The remaining *t*-test revealed no significant differences in body dissatisfaction, assessed after viewing either the thinspiration images ( $M = 2.03$ ,  $SD = 1.18$ ) or fatspiration images ( $M = 2.05$ ,  $SD = 1.31$ ),  $t(64) = -0.06$ ,  $p = .95$ .

**Table 1**  
*Independent Sample T-tests Results*

	Thinspiration	Fatspiration			
	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>t</i>	df	<i>p</i>
Demographic variables					
Age	19.64 (2.08)	19.00 (3.11)	0.95	63	.35
BMI	23.69 (5.41)	25.62 (5.22)	-1.49	64	.14
Predictor variables					
Internalization: thin ideal	3.74 (0.84)	3.69 (1.07)	0.20	63	.84
Internalization: muscular ideal	3.26 (0.87)	3.09 (1.19)	0.65	63	.52
Internalization: media	3.10 (0.81)	3.23 (0.86)	-0.60	64	.55
AFA: dislike of fat individuals	12.62 (8.86)	10.97 (6.10)	0.89	64	.38
AFA: fear of fat	18.14 (7.37)	19.14 (7.52)	-0.54	64	.59
AFA: willpower perceptions	12.48 (5.98)	13.41 (4.94)	-0.69	64	.50
UPACS	7.27 (1.94)	7.77 (2.22)	-0.96	64	.34
DPACS	19.76 (9.32)	21.27 (10.50)	-0.61	64	.54
EAT-26	16.35 (13.57)	14.47 (12.70)	0.55	58	.58

*Note.* BMI = body-mass index; AFA = Anti-Fat Attitudes questionnaire; UPACS = Upward Physical Appearance Comparison Scale; DPACS = Downward Physical Appearance Comparison Scale; EAT-26 = Eating Attitudes Test-26.

Table 2 presents the results of the Pearson correlation analyses (to assess whether any of the predictor variables were associated with body dissatisfaction) – for all participants, for those in the thinspiration group, and for those in the fatspiration group. For both the thinspiration and fatspiration groups, UPACS and EAT-26 scores were positively correlated with body dissatisfaction. For the thinspiration group only, internalization of the thin ideal was positively correlated with body dissatisfaction, and for the fatspiration group only, AFA willpower perception was positively correlated with body dissatisfaction. Body dissatisfaction was not significantly correlated with internalization of the muscular ideal, internalization from the media, AFA dislike of fat individuals, or DPACS. Although AFA fear of fat was positively correlated with body dissatisfaction for all participants combined, neither correlation reached statistical significance for the groups themselves.

**Table 2**

*Pearson Correlations with Body Dissatisfaction Based on Condition Group*

	All participants	Thinspiration	Fatspiration
Internalization: thin ideal	.35**	.52**	.25
Internalization: muscular ideal	-.03	.00	-.05
Internalization: media	.21	.04	.31
AFA: dislike of fat individuals	-.21	-.35	-.07
AFA: fear of fat	.29*	.28	.30
AFA: willpower perceptions	.20	-.10	.45**
UPACS	.37**	.43**	.34**
DPACS	.18	.30	.11
EAT-26	.55**	.70**	.43**

*Note.* BMI = body-mass index; AFA = Anti-Fat Attitudes questionnaire; UPACS = Upward Physical Appearance Comparison Scale; DPACS = Downward Physical Appearance Comparison Scale; EAT-26 = Eating Attitudes Test-26.

\* $p < .05$ . \*\* $p < .01$ .

Table 3 presents the regression results that offer an inferential test to determine if the relationships between the predictor variables and body dissatisfaction significantly differed between the thinspiration and fatspiration groups. The only predictor variable to significantly interact with condition was AFA willpower perceptions, consistent with the separate correlation analyses.

**Table 3**

*Regression Analyses Results*

	$\beta$	$t$	$p$	$R^2$
Condition x Internalization: thin ideal	-.06	-0.50	.62	.004
Condition x Internalization: muscular ideal	-.03	-0.27	.79	.001
Condition x Internalization: media	.15	1.22	.23	.023
Condition x AFA: dislike of fat individuals	.16	1.25	.22	.024
Condition x AFA: fear of fat	.03	0.22	.82	.001
Condition x AFA: willpower perceptions	.26	2.14	.04*	.067
Condition x UPACS	.01	0.03	.98	.001
Condition x DPACS	.07	0.58	.56	.005
Condition x EAT-26	-.14	-1.06	.30	.019

*Note.* AFA = Anti-Fat Attitudes questionnaire; UPACS = Upward Physical Appearance Comparison Scale; DPACS = Downward Physical Appearance Comparison Scale; EAT-26 = Eating Attitudes Test-26.

\* $p < .05$ . \*\* $p < .01$ .

## IV. DISCUSSION

Thinspiration and fatspiration are both extreme messages idealizing eating disorders. Thinspiration refers to images of extremely thin women meant to inspire and motivate viewers to engage in or maintain disordered eating. Fatspiration consists of images of overweight to morbidly obese women meant to warn viewers about what could happen to them if they do not engage in disordered eating behaviors. Exposure to thinspiration has been linked to increases in body dissatisfaction (Bardone-Cone & Cass, 2006; 2007; Delforterie et al., 2014; Jett et al., 2010). While the effects of fatspiration are mainly unknown, exposure to images of overweight women has been found to produce an increase in body dissatisfaction similar to that of viewing thin-ideal women (Dalley et al., 2009). There is a discrepancy in the findings between viewing thinspiration images and viewing thin-ideal images. So, it is possible that this discrepancy also exists in the effects of viewing images of overweight women compared to fatspiration images. Therefore, the overarching purpose of this present research was to examine the impact of fatspiration on women's body dissatisfaction and compare the effects of fatspiration and thinspiration on this same variable. It was hypothesized that exposure to thinspiration images would result in greater body dissatisfaction compared to exposure to fatspiration images (Hypothesis 1), that exposure to thinspiration images combined with greater preexisting disordered eating behaviors, internalization of the thin-ideal and upward appearance-based social comparisons would result in greater body dissatisfaction (Hypothesis 2), and that exposure to fatspiration would have a greater effect on body dissatisfaction in participants who have greater anti-fat attitudes (Hypothesis 3). Each hypothesis and relevant findings is discussed in detail below.

Unexpectedly, the results showed that body dissatisfaction did not significantly differ between the thinspiration and fatspiration conditions. Thus, the first hypothesis (exposure to thinspiration images would result in greater body dissatisfaction compared to exposure to fatspiration images) was not supported. This finding contradicts the findings of Dalley et al. (2009), who found that exposure to thin body images was associated with greater body dissatisfaction compared to exposure to overweight body images. Based on social comparison theory, it is possible that the females in this sample did not find the thinspiration and fatspiration images to be similar enough to themselves to elicit comparison processes (Stice & Shaw, 2002). It is also possible that the extreme nature of the images found in thinspiration and fatspiration could evoke similar levels of body dissatisfaction, albeit for different reasons. While thinspiration creates body dissatisfaction based on expectations of how women should look, fatspiration creates body dissatisfaction based on expectations of how women should not look.

Hypothesis 2 (exposure to thinspiration images combined with greater preexisting disordered eating behaviors, internalization of the thin-ideal and upward appearance-based social comparisons would result in greater body dissatisfaction) was partially supported. Internalization of the thin ideal, upward appearance-based social comparisons, and disordered eating symptomatology were all associated with greater body dissatisfaction, and the correlation coefficients were greater in the thinspiration group than in the fatspiration group. In fact, the correlation between internalization of the thin ideal and body dissatisfaction was not significant for those in the fatspiration group. While body dissatisfaction was found to be related to upward comparisons in both groups the same was not found to be true for downward comparisons. Downward social

comparisons have been shown to be related to decreased body dissatisfaction (Thomas et al., 2017), so this conceptually makes sense since both thinspiration and fatspiration exposure led to body dissatisfaction in this sample.

Body dissatisfaction is the strongest predictor of the development of eating pathology (Smolak & Levine, 2015), and there has been a noticeable shift in sociocultural pressures away from a thin ideal towards a more fit ideal (Karazsia et al., 2017). This would also create a change in what bodies are being portrayed by the media most often and, therefore, would change what types of bodies women are constantly exposed to. This shift in sociocultural pressures (Karazsia et al., 2017) and subsequent shift in popular media may explain why an internalization of the thin ideal did not predict body dissatisfaction within the fatspiration group and why there was no significant differences between thinspiration and fatspiration on body dissatisfaction. Based on cultivation theory (Gerbner et al., 2002), this shift in body ideals would potentially mean that the ideal that is being internalized and normalized most by the media is a different body ideal such as a fit-ideal or a curvy-ideal which would decrease the self-relevance of thin-ideal imagery and therefore decrease social comparisons leading to body dissatisfaction. This reasoning may explain why the relationship between social comparisons and body dissatisfaction was not significantly greater in the thinspiration group than in the fatspiration group. However, media consumption was not measured in the current study, so it is impossible to gauge how much previous exposure participants have had to body-ideals in the media they consume.

Hypothesis 3 (that exposure to fatspiration would have a greater effect on body dissatisfaction in participants who have greater anti-fat attitudes) was also partially

supported. The anti-fat attitude that “lack of willpower contributes to being fat” was associated with greater body dissatisfaction for those in the fatspiration group but was unrelated to body dissatisfaction in the thinspiration group. Willpower accounted for 6.7% of the variance in body dissatisfaction between the thinspiration and fatspiration groups. Interestingly, although fear of becoming fat was associated with greater body dissatisfaction for all participants combined, the thinspiration and fatspiration groups did not differ on this associations. This is possibly due to thinspiration and fatspiration both containing the same message that being fat is undesirable and this message is clearer in fatspiration than in thinspiration. Thinspiration also promotes being thin as desirable while fatspiration solely promotes being fat as an undesirable trait. This may explain why more anti-fat attitudes were associated with decreased body dissatisfaction in the fatspiration group but a fear of becoming fat was significant for all participants while not differing between groups.

### **Strengths, Limitations, and Future Directions**

The present study had several notable strengths. First, the images used for both the thinspiration and fatspiration conditions were fairly homogeneous. While this also has some drawbacks, overall, this eliminates distractions and other extraneous variables (e.g., food, tattoos, inspirational quotes etc.) from being introduced that may skew how the images are perceived and thus create unnecessary statistical noise. Second, participants completed the survey online, which likely more closely replicates the real-world experiences of thinspiration and fatspiration compared to in-lab studies. While the use of online surveys does present the risk of random answering and lack of attention, the

present study used several attention check questions throughout the survey to ensure that random sampling and lack of attention was limited in the final sample.

It is important to interpret these findings in the context of several limitations. First, the sample limits the generalizability of these findings. Demographic variables such as race, ethnicity, BMI, and BMI category (underweight, normal, overweight, and obese) were not able to be examined due to the small sample size. The focus of this study was on females and the sample only included female undergraduates, so this limits the generalizability of these findings to this population.

Second, the images used in the present study were relatively homogeneous to reduce statistical noise. These images did not include all of the features and characteristics commonly associated with thinspiration and fatspiration. Hashtags, inspirational quotes, sexualized poses, and the presence of food or physical activity are all standard features of thinspiration and fatspiration that were not included in the images used for this study. The current study also only included images of bodies and these bodies did not depict obviously anorexic or morbidly obese body types so the results may not be generalizable to other features of thinspiration and fatspiration. Future research should explore integrating these features into images used to study what effects they may have on body dissatisfaction and social comparisons so that the full effect of thinspiration and fatspiration on body dissatisfaction can be examined.

A third limitation was that males were excluded from the present study because the presentation of thinspiration and fatspiration differs for men and women, as do experiences of body dissatisfaction (Neighbors & Sobal, 2007). Therefore, it is more appropriate to study the effects of thinspiration and fatspiration on males and females

separately as was done in the current study. While the present study focused on the effects of thinspiration and fatspiration on females, future research should examine the effects of thinspiration and fatspiration on body dissatisfaction in males.

### **Conclusions and Implications**

The overarching purpose of this study was to examine the effect of thinspiration and fatspiration on body dissatisfaction and how internalization of the thin ideal, media influence, anti-fat, upward appearance-based social comparisons, downward social comparisons, and disordered eating behaviors predicts this relationship. Overall, the present findings suggest that thinspiration imagery increases body dissatisfaction in those who internalize the thin ideal, whereas fatspiration imagery increases body dissatisfaction in those with greater anti-fat attitudes. Other than these differences, fatspiration is similar to thinspiration in terms of its effect on body dissatisfaction and therefore warrants further investigation. Clinicians could also benefit from the findings of this study as it helps inform on the consequences of viewing thinspiration and fatspiration images, particularly in individuals who have disordered eating behaviors or are in recovery for an eating disorder as both can lead to body dissatisfaction. Additionally, clinicians can use these findings to inform their recommendations to their clients for everyday coping skills for regular exposure to this type of body centric imagery that exists in all forms of media. Since upward appearance-based social comparisons and anti-fat attitudes have been found to be associated with body dissatisfaction, clinicians can work with their clients on cognitive restructuring to combat upward appearance-based social comparisons and anti-fat attitudes that this study has found to lead to body dissatisfaction. This research adds to the evidence of negative consequences of viewing

thinspiration material, while forming the foundation of evidence that viewing  
fatspiration material may also result in similar negative consequences.

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