

7-2021

## Hot or Not? The Effects of Fitspiration Images on Body Dysmorphic Concerns

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# Hot or Not? The Effects of Fitspiration Images on Body Dysmorphic Concerns

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Hot or Not? The Effects of Fitspiration Images on Body Dysmorphic Concerns

By

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Presented to the Faculty of the Graduate School of

Stephen F. Austin State University

In Partial Fulfillment

Of the Requirements

For the Degree of

Master of Arts in Psychology

STEPHEN F. AUSTIN STATE UNIVERSITY

August 2021

Hot or Not? The Effects of Fitspiration Images on Body Dysmorphic Concerns

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## **Abstract**

Despite positive intentions, research suggests that fitspiration causes a multitude of negative effects on body image. This study will expand on previous work by examining the effects of fitspiration on body dysmorphic concerns, appearance-based rejection sensitivity (appearance-RS), and intentions to exercise, as well as the differences in these effects by sex. The first hypothesis is that participants will report more body dysmorphic concerns and appearance-RS following exposure to fitspiration compared to travel images. Second, it was hypothesized that compared to males, females will be more prone to the negative impact that fitspiration images have on body dysmorphic concerns and appearance-RS. Third, it was hypothesized that participants will report higher intentions to exercise following exposure to fitspiration compared to travel images. Lastly, it was hypothesized that exposure to fitspiration images will be associated with higher levels of intentions to exercise for males compared to females. Participants were randomly assigned to view fitspiration images or travel images. Following exposure, all participants completed a series of self-report measures to assess appearance-RS, exercise intentions, dysmorphic concerns, and demographics. Results indicate that exposure to fitspiration images may increase consumers' perceived intention to engage in aerobic and strength training, regardless of sex. Neither males nor female's state-level dysmorphic concern or appearance-RS varied with exposure to fitspiration.

## **Acknowledgement**

First and foremost, I would like to express the deepest appreciation to my committee chair, Dr. Sarah Savoy, who took on this project with me not once, but twice, and guided me to conduct meaningful research. Without her patience, encouragement, and expertise, this project would not have been possible. Dr. Brewer for her constructive feedback, attention to detail, and unfailing support; Dr. Pearte for her high expectations, motivation, and demand for greatness; Dr. Nina Ellis-Hervey for her expertise in the media and internet, for challenging me to think about this research from various points of view, and for asking the questions that I overlooked, this project would not be the same without all of you.

To my loved ones, thank you for pushing me to be the best version of myself, to put in the hard work, and to never give up. To the most important person in my life, thank you for missing out on events, just because I could not go, for being understanding of the sleepless nights, and the countless hours that had to be put in to achieve this academic milestone; without your patience, words of encouragement, and unwavering support, this achievement would not have been possible.

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## **Hot or Not? The Effects of Fitspiration Images on Body Dysmorphic Concerns**

As the development of technology evolves, so does the use of social networking sites. Social media ties social interaction and technology together creating opportunities for individuals to share content of their own and that of their followers (Luxton et al., 2012). There are a variety of social media platforms including: social networking (Facebook and LinkedIn), Microblogging (Twitter, Tumblr), video sharing (YouTube, TikTok), and photo sharing (Instagram, Snapchat, Pinterest). The Pew Research center began tracking social networking site usage in 2005, during which few adults engaged with any social media platforms (5%). However, the number of users today has risen sharply to approximately 75% (Pew Research Center, 2020). In 2019, the Pew Research center reported Facebook as the most widely used social media platform among adults and Instagram as the most widely used among young people (Perrin & Anderson, 2020). Among Facebook users, 51% say they use the site several times a day and 42% of Instagram users report similar usage. Snapchat ranks highly in daily usage as well, with 46% of users logging in daily (Perrin & Anderson, 2020).

Instagram is similar to Snapchat and Facebook in that it allows its users to share photos and videos, mostly through selfies and photographs that include hashtags and filters. Users can also see similar items from accounts they follow. Since its launch in 2010, Instagram has been increasing its daily number of users, with more than 800 million users. In February, Tankovska (2021) reported 50.8% of users to be females, with the remaining 49.2% being males.

Additionally, the amount of time young people spend on this site is relatively high. Nearly 60%

of users spend between one and five hours per day on Instagram (Knight-McCord et al., 2016). Instagram emphasizes the sharing of photographs and videos over text, making it a highly visual social media platform (Marengo et al., 2018). Many images shared on Instagram are appearance-focused with an emphasis on fitness, dieting, fashion, and cosmetics. This has attracted the attention of contemporary body image researchers (e.g., Slater et al., 2017; Tiggemann & Zaccardo, 2018). The focus of the current research is understanding the impact of appearance-focused images on appearance- and fitness-related concerns.

Social comparison theory (Festinger, 1954) has been used to explain the link between the amount of time spent on social networking sites and psychological distress (e.g., Fardouly & Vartanian, 2015). This theory holds that individuals are driven to evaluate themselves (i.e., appearance, abilities, beliefs) by comparing themselves to others. Festinger (1954) suggested that when a self-evaluation of an attribute is negative or inferior as a result of social comparison, this usually results in feelings of failure and inadequacy. Upward comparisons, comparisons to higher status individuals, can thus predict reductions in self-worth and psychological well-being (e.g., Tesser et al., 1989). With the longer time spent on social networking sites and an increase in selfies posted, individuals have many opportunities to compare themselves to others' images (McCreary & Sasse, 2000; Homan, 2010). Many social media profiles, particularly those that are appearance- or fitness-focused, are curated and heavily edited, thus increasing the risk for psychological distress (Liu et al., 2017; Vogel et al., 2014; Yang, 2016). Despite its popularity, Instagram has been linked to increased risk for mood disruptions (Slater et al., 2017) body dissatisfaction (Tiggemann & Zaccardo, 2018), eating related concerns, and excessive exercise (Holland & Tiggemann, 2016; Homan, 2010). Additionally, such studies have found that people

who frequently use Instagram and other social networking sites, are more likely to report feelings of loneliness and social isolation (Primack et al., 2017). Although studies have shown risks for mood, body dissatisfaction, and eating-related concerns, little is known about the risks engaging with Instagram may hold for body dysmorphic concerns. Currently, only one study has examined the association between Instagram use and dysmorphic concerns across both genders. In this study, Instagram use was related to dysmorphic concerns through appearance-related concerns (Senín-Calderón et al., 2020). In other words, more people using Instagram compare themselves to others on Instagram, ultimately leading to more dysmorphic concerns. Lastly, as the gap between the number of male and female Instagram users closes, further research should be conducted to include both sexes to examine body dysmorphic concerns and engagement with Instagram.

### **Fitspiration**

A growing number of people are turning to social media for health advice (Carrotte et al., 2017). Recently, the trend on social media is “fitspiration” (a portmanteau of the words fitness and inspiration). Fitspiration, or “fitspo,” has been defined as images that are designed to motivate people to exercise and live healthier lifestyles than they currently live (Tiggemann & Zaccardo, 2015; Abena, 2013). Fitspiration can be found on sites such as Instagram using the hashtag, or the number symbol (#), followed by the word fitspiration or fitspo. A search for “#fitspo” or “#fitspiration” allows users to view images or videos relating to exercise and clean eating tips and recipes, as well as before-and-after transformation images of other users. A search for fitspiration related images (e.g., #fitspiration, #fitspo) returned nearly 100 million images in February 2021. The most common images found when searching Instagram for “#fitspiration,”

include females dressed in workout attire engaging in an exercise activity such as weightlifting; however, the search does identify similar images of men. Every user on Instagram can search for fitspiration images and can view images that have been posted using the tag. Moreover, users can make comments on these photos, whether or not they follow the account owner. Many comments on photos are negative. Although negative comments may cause one to experience a negative body image, research suggests that comments are not the only source of body dissatisfaction. Experimental studies have suggested fitspiration images themselves may lead to an increase in body dissatisfaction and negative mood (Pritchard et al., 2017; Robinson et al., 2017; Tiggemann & Zaccardo, 2018).

The fitspiration movement was initially touted as a “healthier” alternative to thinspiration due to its emphasis on strength and fitness motivation (Simpson & Mazzeo, 2017, p. 561). Compared to fitspiration, thinspiration content idolizes thin to severely underweight bodies, and devalues bodies deemed “overweight” to encourage weight loss and extreme dieting (Boepple & Thompson, 2016). The transition from thinspiration to fitspiration emphasizes tone and muscularity in addition to thinness (Robinson et al., 2017), rather than solely thinness. In other words, compared to thinspiration, fitspiration highlights additional standards for appearance and an increasing unobtainable ideal.

The majority of research on fitspiration has focused solely on females or males separately, whereas very little research has examined males and females in the same study. Griffiths and Stefanovski (2019) examined fitspiration among men and women to identify which gender encountered fitspiration more often. Their findings indicated that women consumed more fitspiration media than men. Seymour (2002) observed a greater decrease in female’s compared to

male's mood following exposure to fitspiration. A comparison of effect sizes across studies also suggests that the impact of fitspiration on psychological well-being may be more severe in females. Studies using an entirely female sample have documented moderate effect sizes for exposure to fitspiration on body dissatisfaction ( $d = 0.50$ , Tiggemann & Zaccardo, 2015;  $d = 0.56$ ; Robinson et al., 2017) and negative mood ( $d = 0.70$ , Tiggemann & Zaccardo, 2015), whereas a much smaller effect size has been documented for exposure to fitspiration on negative mood in males ( $d = 0.29$ ; Yee et al., 2020). In their meta-analysis of social comparison and body dissatisfaction Meyers and Crowther (2009) concluded that women make upward comparisons regarding appearance more often than men and in turn are more at risk for body dissatisfaction following media exposure (Myers & Crowther, 2009). They also identified a large effect of social comparison on women's body dissatisfaction ( $d = 0.83$ ) whereas the effect on men's body dissatisfaction was only moderate in size ( $d = 0.54$ ).

Despite these effect size differences, with fitspiration's added focus on the muscularity, it is important to recognize that fitspiration may appeal to male social media consumers more so than thinspiration and broaden the scope of social media's overall influence on society's body image ideals. The media (including fitspiration) portrays the ideal male body as a medium build that is highly muscular (Carrotte et al., 2017) and having a 'V-shape' (Corazza et al., 2019), whereas for females, the ideal body portrayed by the media is thin and toned (Carrotte et al., 2017; Markula, 1995). In addition, males experience with fitspiration may be less appearance focus and more functionality focused. When examining adolescent peer- and media-related social comparisons, Tatangelo and Ricciardelli (2017) observed that girls attend more to appearance whereas boys attend more to athletic skills and physical ability (i.e., functionality). This could be

attributed to the social norms that males and females intuit. Tatangelo and Ricciardelli (2017) argued traditional gender norms facilitate greater expectations for females and girls in the domain of appearance but greater expectations for males and boys in the domains of strength and athleticism. If females make more appearance-related social comparisons when exposed to fitspiration, they could also be more susceptible to body dysmorphic concerns.

Although fitspiration may idealize a more ‘athletic’ build for women (Robinson et al., 2017), media portrayed standards for appearance generally objectify women’s bodies based on looks rather than functional capacity and may place women at more risk than men for body image concerns (Pritchard et al., 2020). The added importance placed on muscularity and strength could be particularly salient to males, however the current understanding of how males respond to fitspiration and how their responses may differ from females’ responses is still very limited. The Tripartite Influence Model (Thompson et al., 1999) assumes that there are three societal factors that predict body dissatisfaction: peers, parents, and the media (Donovan et al., 2020). This model suggests that media may influence the way individuals perceive their body by communicating appearance-related ideals and by increasing the likelihood of appearance-related comparisons (Van den Berg et al., 2002). Although these mediational pathways have been primarily supported in female samples (Cafri et al., 2005; Groesz et al., 2002; Hargreaves & Tiggemann, 2003; Myers & Crowther, 2009), some evidence suggests they may also exist in males (Myers & Crowther, 2009; Tylka, 2011).

While fitspiration was intended as a movement to encourage fitness and motivate individuals to be healthy and fit (Pritchard et al., 2020), some view this lifestyle and “unrealistic and unobtainable,” (Robinson et al., 2017) which has the potential to make one feel worse about

one's body and experience mood disruptions. Moreover, fitspiration has also been linked to disordered exercise behaviors and dysmorphic concerns (Carrotte et al., 2017).

### **Body Dissatisfaction and Dysmorphic Concerns**

Cash and colleagues (2004) defined body image as a “multidimensional construct encompassing self-perceptions and attitudes regarding one's physical appearance” (p. 1081). Body dissatisfaction and dysmorphic concerns are interrelated; however, dysmorphic concerns are said to be core symptoms of body dysmorphic disorder (BDD). Body dysmorphic concerns/BDD involve excessive preoccupation with one's appearance (Schmidt & Martin, 2019), specifically perceived flaws or imperfections that are usually slight or unnoticeable by others (American Psychiatric Association, 2013). Conversely, body dissatisfaction is defined as an “overevaluation of weight and shape with regard to a person's sense of self” (Karazsia et al., 2016, p. 294). Essentially, body dissatisfaction deals with negative thoughts about an individual's body image. The Diagnostic and Statistical Manual of Mental Disorders (5th edition; DSM-5; 2013) classifies body dysmorphic disorder as an obsessive-compulsive disorder (American Psychiatric Association, 2013), whereas body dissatisfaction itself is not classified as a disorder.

One might assume that, similar to eating disorders (i.e., anorexia nervosa or bulimia nervosa), body dysmorphic disorder would be much more prevalent in females than males. However, according to the DSM-5 (American Psychiatric Association, 2013), there is not a large difference in the prevalence of BDD between males and females. In fact, the prevalence of BDD among adults in the United States is only about 2.4%, with 2.2% being male and 2.5% being female.



Body dysmorphic disorder negatively impacts individuals by increasing levels of anxiety, depressed mood, neuroticism, and perfectionism (American Psychiatric Association, 2013). Often, this preoccupation prompts compulsive behaviors such as body checking and the urge to cover the “imperfection” (Senin-Calderon et al., 2020). Individuals exhibiting dysmorphic concerns spend a great deal of time attempting to camouflage the characteristic they perceive as flawed. Individuals exhibiting dysmorphic concern face higher levels of depression, anxiety, distress, and suicidal ideations (Kelly et al., 2014). Additionally, they are more prone to mirror checking and performing safety behaviors (i.e., behaviors aimed at checking, hiding, fixing, or reducing threat associated with one’s perceived flaw in appearance; Bjornsson et al., 2010) and have poorer mental and general health (Kelly et al., 2014). Body dysmorphic concerns play a major role in social and interpersonal problems because individuals become distressed if they sense that others are viewing them negatively (Kelly et al., 2014).

### **Rejection Sensitivity**

It has been posited that people are motivated by physical attractiveness, because it boosts self-esteem (Crocker et al., 2003). However, Park (2007) found that the preoccupation with physical attractiveness extends beyond self-esteem and suggests a more interpersonal reason, rejection sensitivity. Rejection sensitivity, a concept initially explored by Downey and colleagues (2017) implies that individuals anxiously expect rejection. Similarly, Park (2007) explored rejection sensitivity, but in relation to appearance and coined the term appearance-based rejection sensitivity (Appearance-RS). Research suggests appearance-RS is an important feature of BDD (Kelly et al., 2014) and dysmorphic concern.

Research involving appearance-RS and dysmorphic concern is limited. However, several studies have found appearance-RS to be higher in individuals with BDD and greater dysmorphic concern (Densham et al., 2017; Fang et al., 2011; Kelly et al., 2014; Lavell et al., 2014).

Ultimately, those with BDD are more likely to exhibit appearance-RS and be worried about being rejected based on their looks. Densham and colleagues (2017) examined this relationship and found that in an adolescent population, dysmorphic concern and appearance-RS were higher among girls than boys. Though little research has examined dysmorphic concern and appearance-RS in adult samples, young adults who report greater internalization of media ideals and greater pressure from the media to look attractive also report higher levels of appearance-RS (Park et al., 2009). Park and colleagues' (2009) study is also one of few that has examined the relationship between appearance focused media and rejection sensitivity in a co-ed sample. One interesting sex difference they reported was that female participants tended to recall more appearance-based comments from parents and siblings compared to male participants (Park et al., 2009). This finding is consistent with Tatangelo and Ricciardelli's (2017) suggestion that traditional feminine gender norms emphasize appearance.

It has also been suggested that social media "likes," "hearts," or up-votes may fuel an individual's desire to appear a certain way in online images. Researchers on the topic of "likes" and up-votes link receiving more likes on an image and users' desire to appear in specific ways, to the self-presentation theory (Cassarly & Dunbar, 2018). An article by Bullingham and Vasconcelos (2013), states simply this phenomenon by Erving Goffman, who developed the self-presentation theory. Bullingham and Vasconcelos (2013) reiterate that Goffman states "when in 'front stage,' individuals perform to those watching using certain rules and social conventions."

Otherwise stated, the self-presentation theory argues that people are motivated to portray their ideal self to please others (Baumeister, 1982). Cassarly and Dunbar (2018) found that receiving more likes, or positive feedback, on objectified self-images was indicative of motivation to present the self in similar ways in the future. The motivation to post images that appeal to viewers more often, may thus increase with the number of likes an individual has had on previous images. Moreover, the more likes a person has can influence how the user portrays themselves. Research has found Facebook, a popular social media site, to be related to more negative social comparison and in turn, more negative self-perception (de Vries & Kühne, 2015). Other researchers argue that the more “likes” or up-votes a user receives, the greater their self-esteem, as well as the amount of effort they put into exercising (Chatzopoulou et al., 2020). Less is known about the role up-votes play in shaping a consumer’s attitudes about the self or personal motivation.

### **Intent to Exercise**

Fitspiration media is designed to motivate individuals to engage in physical exercise and become more physically fit. These goals set fitspiration apart from thinspiration and underlie the argument that fitspiration is a healthier alternative to thinspiration. That is, although thinspiration is designed to inspire starvation or extreme thinness, proponents of fitspiration argue that viewing images of others exercising and flexing their muscles can instigate exercise intentions or boost motivation to exert more effort during subsequent attempts at exercise. Even so, surprisingly few researchers have examined the relationship between fitspiration and actual exercise or exercise intentions. Tiggemann and Zaccardo (2015) were the first researchers to examine this relationship. Following Tiggemann and Zaccardo (2015), Pritchard et al. (2020) used similar methods to examine this relationship. Both studies found that participants exposed to fitspiration

images reported greater intentions to exercise than participants exposed to control images.

Pritchard et al.'s (2020) study revealed that although participants exposed to fitspiration images reported perceptions of greater exertion, ultimately there was no difference in their actual exertion (distance travelled on a treadmill) than that of participants exposed to control images. Robinson et al. (2017) reported similar null results for actual exercise. One limitation is that Tiggemann and Zaccardo (2015), Pritchard and colleagues (2020), and Robinson and colleagues (2017) only included female participants. Fatt et al. (2019) experimentally tested the effects of fitspiration images on exercise intentions among males (Fatt et al., 2019). This study found a null effect of fitspiration images on exercise intentions, which the authors attributed to the fact that males were exposed to fitspiration images that included both males and females. Physical attraction and physical arousal could have diluted the motivational elements of this fitspiration manipulation. Further, this manipulation lacked ecological validity in that it did not reflect how social media experiences tend to be demographically filtered and personalized. On the other hand, two studies have identified motivational outcomes following male participants' exposure to all male fitspiration images. Peng et al. (2019) observed that male participants' upward social comparisons to fitspiration models led to stronger motivation for self-improvement compared to downward and lateral social comparisons. Yee et al. (2020) observed that male participants' urges to reduce body fat were stronger following exposure to fitspiration images compared to thinspiration and neutral images, and their urges to increase muscularity were stronger following exposure to fitspiration images compared to neutral but not thinspiration images. It is important to note, however, that the motivations and urges that Peng and colleagues (2019) and Yee and colleagues (2020) measured may not necessarily translate into similar increases in exercise intentions. Further research is thus warranted to examine the impact of fitspiration on male exercise

intentions. Given the salience of functionality and ability in male social comparisons (Tatangelo & Ricciardelli, 2017) and the greater emphasis men tend to place on muscularity compared to women (Grogan, 2016), fitspiration images may inspire stronger intentions to exercise in males compared to females.

### **The Present Study**

Although fitspiration was developed to have a positive impact on social media consumers, research tends to suggest it has a negative effect on body satisfaction (e.g., Griffiths & Stefanovski, 2019). The purpose of the present study was to investigate outcome variables other than body satisfaction as well as differences across males and females following exposure to fitspiration images, consequently, widening the scope of fitspiration research. Little research has examined the effects of fitspiration images on dysmorphic concerns and sensitivity to appearance-based rejection among males and females. Although fitness motivation is a central goal of fitspiration media, the impact of exposure to fitspiration images on exercise intentions is not well understood. This is particularly the case for male exercise intentions. The current study will rectify these gaps in the literature.

### ***Hypotheses***

It was expected that exposure to fitspiration images would increase dysmorphic concern and appearance-RS.

**Hypothesis 1.** Participants would report more body dysmorphic concerns and exhibit more appearance-RS following exposure to fitspiration images compared to neutral control images.

**Hypothesis 2.** Compared to males, females would be more prone to the negative impact that fitspiration images have on body dysmorphic concerns and appearance-RS.

**Hypothesis 3.** Participants would report higher intentions to exercise following exposure to fitspiration images compared to neutral control images.

**Hypothesis 4.** Exposure to fitspiration images would be associated with higher levels of intentions to exercise for males compared to females.

For exploratory purposes, we examined perceived likelihood of engagement with the media (via “hearting” and “liking”) as a function of image type and sex as a predictor of the body dysmorphic concerns, appearance-RS, and intentions to exercise.

## **Method**

### **Participants**

Prior to main analyses, data were screened, cleaned, tested for assumptions, and analyzed using IBM's SPSS statistical software. Of the 334 total participants recruited, 158 participant's data were removed. Twenty-two participants were removed for not answering 10 or more of the study items. Thirty-six additional participants were removed for not passing the attention check, and 62 were removed because they did not meet cisgender inclusion criteria. Due to the large sex discrepancy, 38 participants were randomly removed to allow for equal representation of males and females in each experimental condition (Puhl & Brownell, 2006). Therefore, a total of 176 participants' data was used for analyses. Prior to running the ANOVAs, the data was screened for any univariate outliers that were outside of the interquartile range. This indicated no outliers in the data with more than 30 participants in each cell. The researcher tested for homogeneity of variances using the Levene's Test of Equality, as well as, for normality using the Shapiro-Wilk test. The researcher chose not to use transformations of these variables to address violations detected by these tests. Because the analyses were well powered, and cell sizes were equal, the ANOVA was considered robust to these violations (Field, 2018). An independent samples *t*-test indicated no significant difference in BMI across experimental conditions; therefore, BMI was not controlled for in the ANOVA

Participants included 88 female undergraduate students and 88 male undergraduate students, recruited using the department of psychology at Stephen F. Austin State University's (SFASU) SONA system, Amazon's MTurk, and social media. Only participants over the age of 18 were eligible to participate. Participants from the SFASU sample who agreed to participate in study were granted course credit upon completion. Participants recruited via MTurk were paid \$0.25 for their participation. The sample size of 176 gave us more than 30 participants per cell and a power level higher than .95 to detect an effect as small as .10 (Jaccard & Becker, 2009).

### **Design and Experimental Manipulation**

This study used a randomized 2 (image type: fitspiration, travel)  $\times$  2 (sex: male, female) between groups design. Image type was a between-subjects factor with half of the participants viewing the fitspiration images and the other half viewing the travel images (a neutral control condition). Participants who self-identified as male only viewed male fitspiration images and participants who self-identified as female only viewed female fitspiration images. Image type was an independent variable and sex was a quasi-independent variable. Dysmorphic concern, appearance-RS, and exercise intentions were examined as dependent variables.

#### ***Image Type***

Two sets of 9 images were selected from a larger pool of images tested in a pilot study to be comparable on ratings of quality, attractiveness, and inspiration. Images were all of the same size (14.5 cm  $\times$  14.5 cm) regardless of orientation (i.e., landscape, portrait). The fitspiration images portrayed athletic (thin and muscular) and hyper-muscular (moderately thin and extremely muscular) males, as well as athletic and hyper-muscular females. The males and females depicted in each image were either posing or engaged in physical exercise. Conversely, travel images did



not include any faces or bodies. Instead, they only contained various travel destinations from around the globe. All images were sourced from public social media sites and profiles using fitspiration- and travel- related search terms and hashtags.

Half of the participants viewed the fitspiration images whereas the other half viewed the travel images. Males only viewed fitspiration images that depicted males, and females only viewed fitspiration images that depicted females. Males and females viewed the same set of travel images.

## Measures

### *Attention Check*

To ensure attention, participants were asked to look at each image and report what types of images they viewed. Participants chose the response that best correlated with the types of images seen either male's engaging in exercise, female's engaging in exercise, or travel. To check for attention, a fourth response – None of these – was included.

### *Appearance-Based Rejection Sensitivity*

To measure sensitivity of rejection based on appearance, the Appearance-Rejection Sensitivity Scale (Appearance-RS) created by Park (2007) was used (see Appendix B). The Appearance-RS scale is a 10-item measure intended to potentially provoke sensitivity of rejection based on appearance. This scale examines the extent to which the participant feels anxiety after imagining themselves in a given situation. Participants were asked to imagine themselves in each situation and select the response that best indicates how they would feel. Questions regarding participants' anxiety about being rejected based on appearance were answered using a 6-point Likert-type scale ranging from 1 (*very unconcerned*) to 6 (*very concerned*); and the expectation that they would be rejected based on their appearance on a 6-point Likert-type scale ranging from 1 (*very unlikely*) to 6 (*very likely*). Scores were computed by multiplying the anxious concern score by the expectation score to find the anxious expectation of rejection score. Then these scores were used to compute an overall average of scores for the scenarios. The Appearance-RS

has documented internal consistency (Cronbach's alpha = .92; Hawes et al., 2020). The current study also documented good internal consistency (Cronbach's alpha = .934).

### ***Body Dysmorphic Concerns***

Participants completed a modified version of the 7-item Dysmorphic Concern Questionnaire (see Appendix C; Oosthuizen et al., 1998; Tylka & Wood-Barcalow, 2015; Cash et al., 2015; see Appendix C). This measure was adapted by modifying the wording and instructions to assess state-level dysmorphic concerns. The adaptations for this measure were modeled after measures like the Body Appreciation Scale-2 (Tylka & Wood-Barcalow, 2015) and the Body Image States Scale (Cash et al., 2002), which both are regularly used in experimental research to measure state-level body appreciation and body dissatisfaction. The Dysmorphic Concern Questionnaire measures the participant's concerns regarding their physical appearance and bodily functioning. Participants responded using a 5-point Likert-type-scale ranging from 0 (*not at all*) to 4 (*exceptionally so*). A composite score was computed by averaging the response values for all seven items. Higher scores indicated a higher level of body dysmorphic concerns. The original Dysmorphic Concerns Questionnaire has documented reliability (Cronbach's alpha = .88; Oosthuizen et al., 1997). The current study also documented good internal consistency (Cronbach's alpha = .920).

### ***Exercise Intentions***

Participants completed an 8-item measure that was developed by the researcher to assess participant's intent to perform aerobic exercise and strength training exercise (see Appendix D). This measure consists of four items that address aerobic exercise and four items that address strength training. The items were adapted from a measure previously published by Kwan and

Bryan (2010) with documented acceptable reliability (Cronbach's alpha = .69). Participants responded using a 7-point sliding scale with scores ranging from 1 (*not at all likely*) to 7 (*very likely*) to remain consistent with Kwan and Bryan (2010). A composite score was computed by averaging response values for the 4 items of each behavior subscale. Higher scores indicated a greater intent to exercise. The current study documented good reliability for aerobic (Cronbach's alpha = .872) and strength training (Cronbach's alpha = .912) exercise intentions.

### ***Image Liking and Hearting***

To ensure that participants were paying attention to each image and as an exploratory measure, participants were asked to rate how likely they would be to "like" and "heart" each image presented. A composite was created by computing the mean of "liking" ratings and "hearting" ratings across the nine images.

### ***Demographics***

Participants were administered a demographics survey that assessed their age, race, sex/gender the participant identifies as, college classification, sexual orientation, height, and weight, whether the participant had a child, whether the participant has been diagnosed with an eating disorder or body dysmorphic disorder, and the specific site of preoccupation (see Appendix E). Participants were asked to provide their height and weight, which allowed the researcher to compute each participant's body mass index (BMI), which was examined as a potential covariate.

### **Procedure**

Before any data were collected, this study was approved by the Institutional Review Board at Stephen F. Austin State University (SFASU). Participants were recruited using the

SONA System from the psychology department at SFASU, Amazon's MTurk, and various social media sites. Participants who signed up to participate in the study were given a link to access a Qualtrics online survey. Upon accessing the survey, they were presented with an Informed Consent Form (see Appendix A) and asked to indicate whether they agreed to participate in the study. Participants were asked to click 'Agree' to represent their consent to participate prior to viewing images.

Participants were randomly placed into conditions (i.e., fitspiration or travel) by Qualtrics and prompted to complete a demographics questionnaire. Once completed, participants viewed a series of images corresponding to the condition to which they were assigned. Each image was followed by a naivety check, which allowed researchers to determine whether the participant guessed the hypotheses. Once participants were finished viewing and determining which images were viewed, they were asked to complete the Appearance-RS Scale. The Appearance-RS Scale was presented first for all participants to ensure that the salience of appearance related anxiety was not increased due to the presentation of the Dysmorphic Concern Questionnaire. The Dysmorphic Concern Questionnaire and the exercise intention items were randomized. Upon completion of the Appearance-RS Scale, participants were asked to complete the Dysmorphic Concerns Questionnaire and the exercise intentions items in a random order. Once participants completed the last survey, they were debriefed and thanked for their participation (see Appendix G).

### **Data Analytic Strategy**

To test the hypotheses, four separate 2 (image type: fitspiration, travel) x 2 (sex: male vs. female) ANOVAs were used to test for main effects and the interaction between experimental

condition (fitspiration, travel) and sex. Preliminary analysis included an exploration of differences across conditions for body mass index (computed based on self-reported height and weight). Mean scores for dysmorphic concerns (Dysmorphic Concern Questionnaire), appearance-RS (Appearance-RS Scale), and exercise intentions for aerobic exercise and strength training were each entered as separate dependent variables in four separate analyses of variances (ANOVAs).

## Results

### Demographics

Within the 176 participants included in the main analyses, age ranged from 19 to 67. Eighty-eight participants were male (50%), and 88 participants were female (50%). Six participants identified as American Indian/Alaska Native (3.4%), three participants as Asian (1.7%), two as Native Hawaiian or Other Pacific Islander (1.1%), 18 as Black or African American (10.2%) and 147 as White (83.5%). Twenty-five (14.2%) participants identified as Hispanic or Latino and 151 (85.8%) identified as Not Hispanic or Latino. Four participants identified as freshmen in college (2.3%), two as sophomores (1.1%), nine as juniors (5.1%), 10 as seniors (5.7%), 70 as graduate students (39.8%), 37 as not in college (21%), and 44 as college graduates (25%). Eighty-two participants had given birth to children (46.6%), 91 had not (51.7%), and three preferred not to answer (1.7%). Additionally, 26 (14.8%) participants had been diagnosed with an eating disorder or body dysmorphic disorder, 148 (84.1%) had not been diagnosed, and two preferred not to answer (1.1%).

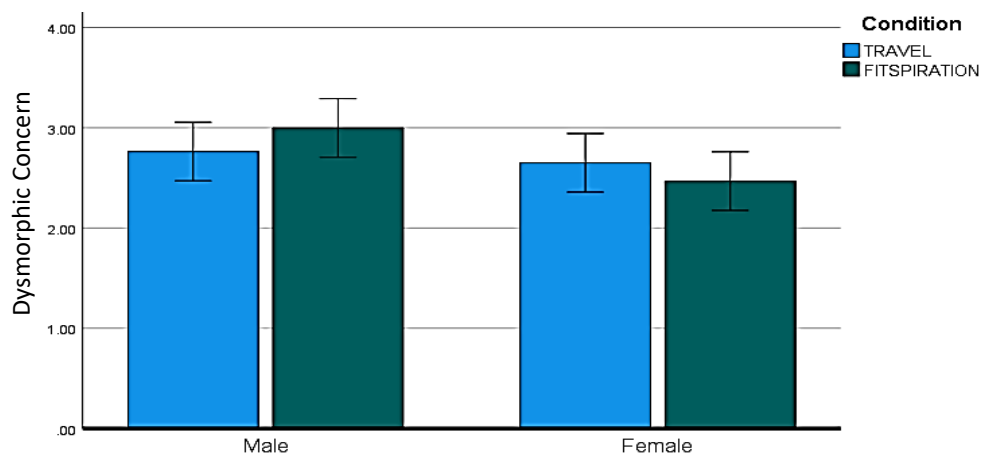
### Exposure to Fitspiration Images and Dysmorphic Concerns

It was hypothesized that participants would report more body dysmorphic concerns following exposure to fitspiration images compared to travel images and that, compared to males, females would be more prone to the negative impact that fitspiration images had on body dysmorphic concerns. The results for a 2 x 2 ANOVA with the full sample ( $n = 176$ ) indicated no significant main effect for image type on dysmorphic concern,  $F(1, 172) = 0.031, p = .861$ , partial

$\eta^2 = .000$ ; however, results did indicate a significant main effect for sex on dysmorphic concerns,  $F(1, 172) = 4.704, p = .031$ , partial  $\eta^2 = .027$ . Males ( $M = 2.881, SD = 0.945$ ) reported more body dysmorphic concern than females ( $M = 2.560, SD = 1.017$ ). There was a non-significant interaction between image type and sex for dysmorphic concern,  $F(1, 172) = 1.983, p = .161$ , partial  $\eta^2 = .011$ . The means and standard errors for dysmorphic concern as a function of image type and sex are reflected in Figure 1.

**Figure 1**

*Mean Dysmorphic Concern as a Function of Image Type and Sex*



### **Exposure to Fitspiration Images and Appearance-Based Rejection Sensitivity**

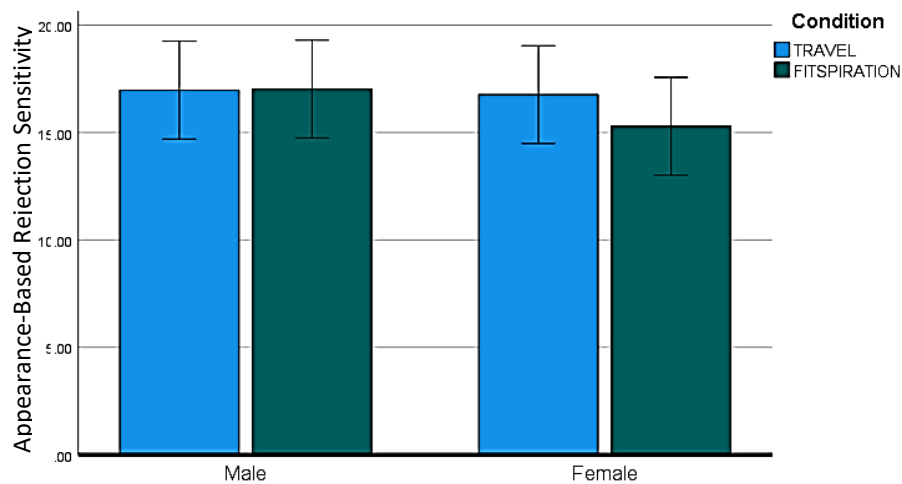
It was hypothesized that participants would report more appearance-RS following exposure to fitspiration type images. Exposure to fitspiration images was expected to result in a more negative impact on appearance-RS for females, compared to males. Results from the 2 x 2 ANOVA with the full sample ( $n = 176$ ) indicated no significant main effect for sex on appearance-RS,  $F(1, 172) = 0.704, p = .403$ , partial  $\eta^2 = .004$ , and no significant main effect for



image type on appearance-RS,  $F(1, 172) = 0.378, p = .540$ , partial  $\eta^2 = .002$ . There also was not a significant interaction between sex and image type for appearance-RS,  $F(1, 172) = 0.438, p = .509$ , partial  $\eta^2 = .003$ . The means and standard errors for appearance-RS as a function of sex and image type are reported in Figure 2.

**Figure 2**

*Mean Appearance-Based Rejection Sensitivity as a Function of Image Type and Sex*



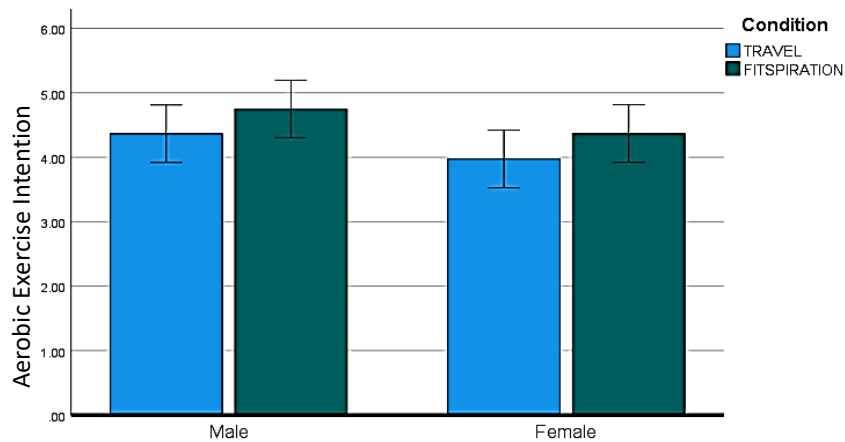
### **Exposure to Fitspiration Images and Exercise Intentions**

It was hypothesized that participants would report higher intentions to exercise following exposure to fitspiration images compared to travel images. It was also hypothesized that exposure to fitspiration images would be associated with higher levels of intentions to exercise for males compared to females. Results from the 2 x 2 ANOVA with the full sample ( $n = 176$ ) revealed no significant main effect for sex on aerobic exercise intentions,  $F(1, 172) = 2.939, p = .088$ , partial  $\eta^2 = .017$ , and no significant main effect for image type on aerobic exercise intentions,  $F(1, 172)$

= 2.968,  $p = .087$ , partial  $\eta^2 = .017$ . No significant interaction was found between sex and image type for aerobic exercise intentions,  $F(1, 172) = .001$ ,  $p = .977$ , partial  $\eta^2 = .000$ . The means and standard errors for aerobic exercise intentions as a function of sex and image type are reported in Figure 3.

**Figure 3**

*Mean Aerobic Exercise Intention Score as a Function of Image Type and Sex*



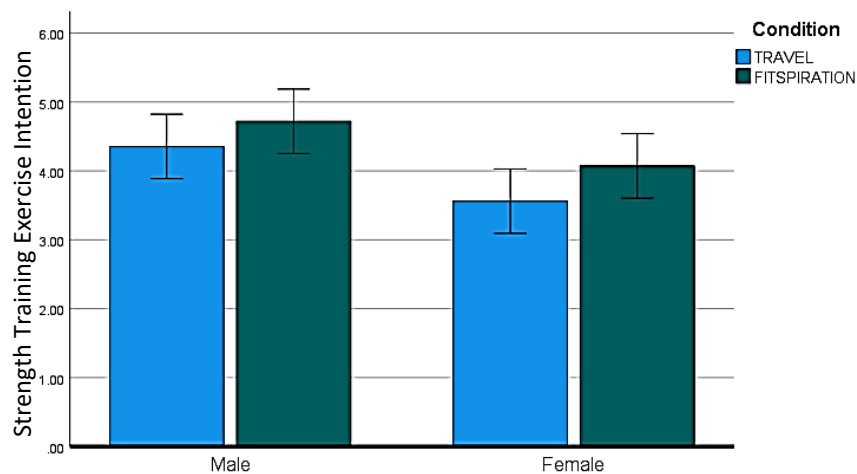
The results from the 2 x 2 ANOVA with the full sample ( $n = 176$ ) indicated a statistically significant main effect for sex on strength training exercise intention,  $F(1, 172) = 9.259$ ,  $p = .003$ , partial  $\eta^2 = .051$ , with males ( $M = 4.539$ ,  $SD = 1.315$ ) reporting greater strength training exercise intentions than females ( $M = 3.818$ ,  $SD = 1.803$ ).<sup>1</sup> There was no significant main effect for image type on strength training exercise intentions,  $F(1, 172) = 3.427$ ,  $p = .066$ , partial  $\eta^2 = .020$ . There was also no significant interaction between sex and image type for strength training exercise

<sup>1</sup> The pattern of results for the 2 x 2 ANOVA with the 38 participants not removed to allow for equal cell sizes, was the same with two exceptions. There was no significant main effect for sex on dysmorphic concerns,  $F(1, 210) = 3.050$ ,  $p = .082$ , partial  $\eta^2 = .014$ . There was a significant main effect for sex,  $F(1, 210) = 10.450$ ,  $p = .001$ , partial  $\eta^2 = .047$  with males ( $M = 4.565$   $SD = 1.277$ ) reporting greater aerobic exercise intentions than females ( $M = 3.784$   $SD = 1.726$ ).

intentions,  $F(1, 172) = 0.095, p = .759, \text{partial } \eta^2 = .001$ . The means and standard errors for strength training exercise intentions as a function of sex and image type are depicted in Figure 4.

**Figure 4**

*Mean Strength Training Exercise Intention as a Function of Image Type and Sex*



### **Exploratory Analyses**

As an exploratory analysis, the researcher ran the same four ANOVAs and added whether the participant had ever given birth to a child as an independent variable. The results of the ANOVA using having a child as an independent variable indicated a significant main effect for whether the participant had a child on dysmorphic concerns,  $F(1, 165) = 7.098, p = .001, \text{partial } \eta^2 = .079$ . Participants who had a child ( $M = 3.045, SD = 0.965$ ) reported higher levels of dysmorphic concern compared to participants who did not ( $M = 2.481, SD = 0.967$ ). There was no significant main effect for having a child on appearance-RS, aerobic exercise intentions, or

strength training exercise intentions. Having a child also did not interact with image type or sex in predicting any of the dependent measures.

As an exploratory analysis, researchers also examined the “liking” variable in combination with the “hearting” variable by computing a composite score across the fitspiration and travel images. This new variable was entered as the dependent variable in a 2 (male, female) x 2 (fitspiration, travel) ANOVA. Results from this ANOVA indicated that there was no significant main effect for sex on liking and hearting. There was no significant main effect for experimental condition on liking and hearting. There was also no significant interaction between sex and image type on liking or hearting. In addition to the ANOVA, the researcher also examined the bivariate correlations between the liking and hearting measure and each dependent variable. Findings indicated significant positive associations across the board (dysmorphic concern:  $r[85] = .409, p < .001$ , appearance-RS:  $r[85] = .273, p = .010$ , aerobic exercise intentions:  $r[85] = .625, p < .001$ , strength training intentions:  $r[85] = .577, p < .001$ ).

An independent samples *t*-test was conducted and found a large variation in age across experimental conditions. Participants in the travel condition ( $M = 39.341, SD = 12.179$ ) were significantly older than the participants in the fitspiration condition ( $M = 33.984, SD = 9.992$ ). Therefore, additional ANOVAs were conducted using age as a covariate. When age was controlled for, the pattern of results however was the same as the main analyses with the full sample ( $n = 176$ ). A significant main effect was found for sex on dysmorphic concerns,  $F(1, 171) = 4.861, p = .029$ , partial  $\eta^2 = .592$ . There was no significant interaction between sex and experimental condition on dysmorphic concerns. There was a significant main effect for sex on strength training exercise intentions,  $F(1, 171) = 8.959, p = .003$ , partial  $\eta^2 = .845$ . There was also

a significant main effect for age on strength training exercise intentions,  $F(1, 171) = 4.926, p = .028$ , partial  $\eta^2 = .598$ .

It was determined that 26 participants reported an eating disorder or body dysmorphic disorder diagnosis. Therefore, the researcher ran additional ANOVAs after removing these participants. Results indicated no significant main effect for sex or experimental condition on liking/hearting the images. Additionally, there was no significant interaction between experimental condition and sex for liking/hearting the images. There was a main effect that approached significance for sex on dysmorphic concerns,  $F(1, 144) = 3.808, p = 0.53$ , partial  $\eta^2 = .026$ , with males ( $M = 2.812, SD = 1.010$ ) only trending toward higher levels of concern than females ( $M = 2.509, SD = 0.999$ ). There was no significant main effect for experimental condition, and no significant interaction between sex and experimental condition for dysmorphic concerns. There were no significant main effects or interactions for sex and experimental condition on appearance-RS. There was a significant main effect for experimental condition on aerobic exercise intentions,  $F(1, 144) = 5.273, p = .023$ , partial  $\eta^2 = .035$ , with fitspiration participants ( $M = 4.63, SD = 1.26$ ) reporting greater intentions than travel participants ( $M = 4.06, SD = 1.66$ ). There was no significant main effect for sex on aerobic exercise intentions and no significant interaction between sex and experimental condition for aerobic exercise intentions. Lastly, for strength training exercise intentions there were significant main effects for sex ( $F(1, 144) = 7.945, p = .006$ , partial  $\eta^2 = .052$ ) and experimental condition ( $F(1, 144) = 4.798, p = .001$ , partial  $\eta^2 = .032$ ), with males ( $M = 4.63, SD = 1.37$ ) reporting greater intentions than females ( $M = 3.74, SD = 1.78$ ) and fitspiration participants ( $M = 4.41, SD = 1.39$ ) reporting

greater intentions than travel participants ( $M = 3.82, SD = 1.79$ ). There was no significant interaction for sex and experimental condition on strength training exercise intentions.

## **Discussion**

### **Implications**

Although several studies have found fitspiration to be linked to disordered exercise, dysmorphic concerns (Carrotte et al., 2017), and appearance-RS (Park et al., 2009) the current study sought to test the hypothesis that the effects that fitspiration images and sex have on body dysmorphic concern, appearance-RS, and exercise intentions, consequently, widening the scope of fitspiration research, examining outcome variables other than body satisfaction, as well as the differences across males and females. Specifically, this study examined whether viewing fitspiration images on social media sites, such as Instagram, increased dysmorphic concerns and appearance-RS ultimately leading to disordered exercise intentions. The current research aids in the more thorough understanding of the effect that fitspiration type images have on social media consumers.

The findings of the current study did not support the hypotheses that 1) participants would report more body dysmorphic concerns and exhibit more appearance-RS following exposure to fitspiration images compared to travel images; 2) compared to males, females would be more prone to the negative impact that fitspiration images have on body dysmorphic concerns and appearance-RS; 3) exposure to fitspiration images would be associated with higher levels of intentions to exercise for males compared to females. Although the analyses with the full sample ( $n = 176$ ) did not support the hypothesis that participants would report higher intentions to exercise following exposure to fitspiration images compared to travel images, an exploratory

analysis with participants reporting diagnosis of an eating disorder or body dysmorphic disorder removed from the sample did support this hypothesis. The null effects for those viewing fitspiration images on dysmorphic concerns and appearance-RS goes against researchers who argue that specific social media images negatively impact individuals – more so females (Densham et al., 2017; Park et al., 2009; Pritchard et al., 2020; Tiggemann & Zaccardo, 2015; Holland & Tiggemann, 2016; Homan, 2010). The exploratory findings with participants with eating disorders or body dysmorphic disorder removed are inconsistent with Fatt and colleagues' (2019) null effects for fitspiration on exercise intentions among males. Our results support the notion that Fatt and colleagues' (2019) null findings were due to their male participants viewing a combination of male and female fitspiration images.

### **Limitations and Suggestions for Future Research**

Though the current study included important improvements to extend previous studies, it is not without limitations. The dependent variables were entirely based on self-report measures, thus self-presentation bias may have compromised the validity for each of the hypothesis tests. Direct measures of exercise (e.g., behavioral observations of duration or effort during workouts) or dysmorphic concerns (e.g., behavioral measures of body checking), for example, could yield very different results. Because this study was completed online, there likely was wide variability in the type of electronic device used, amount of time spent viewing each image, outside noises, and presence of family members or friends during study participation. Had the current study been completed in a laboratory environment, the researchers would have had greater control over the participants' experience with the media and survey content.



Recent research has centered around compulsive and unhealthy consumption of social media. Many have deemed social media as problematic, only if individuals are engaging in “risky behaviors.” Tobin (2014) considers lurking - scrolling or focusing excessively on a specific photo or page, rather than actively scrolling - to be a risky behavior. It was also found that participants who were restricted from posting to Facebook for approximately two days reported lower levels of belonging and meaningful existence (Tobin, 2014). Additionally, those who did not receive any feedback on status updates felt lower levels of belonging and meaningful existence. This indicates that those who engage with social media more often are engaging in risky behaviors, ultimately leading to compulsive and unhealthy consumption. Based on the results from the current study, “liking” and “hearting” might also be considered risky social media behaviors. Given their association with dysmorphic concern, appearance-RS, aerobic and strength training intentions, excessive or compulsive “liking” and “hearting” of fitness images could be a marker of unhealthy preoccupation with size, shape, or exercise.

Likes were measured by asking participants their perceived likelihood of up-voting the images presented to them. In the current study, likes/hearts did not vary by condition. Responses were collected using sliding rating scales online. Perhaps a more informative approach would be measuring these up-votes with observational methods in an experimental setting designed to maximize control and ecological validity. Future studies could develop a method to collecting up-vote responses, by simulating the scrolling of a true Instagram feed or perhaps, providing further context to complement the images. For example, presenting travel and fitspiration images on a platform suited to resemble an Instagram feed. Experimentally manipulating up-vote capabilities for participants in such a platform could allow for researchers to examine causality. Similarly,

future research should aim to replicate the exercise findings of the current study with direct measures of motivation to exercise (e.g., actual measures of physical exertion or stamina similar to methods used by Pritchard et al., 2020; Robinson et al., 2017; and Tiggemann & Zaccardo, 2015). Further, a possible limitation to this study was that the sample did not include participants who identified as transgender. Lastly, future research should explore the effect of fitspiration across race by examining the race of the target and the race of the participant to determine if findings are generalized.

## **Conclusion**

Results from this study did not support the hypotheses that that 1) participants would report more body dysmorphic concerns and exhibit more appearance-RS following exposure to fitspiration images compared to travel images; 2) compared to males, females would be more prone to the negative impact that fitspiration images have on body dysmorphic concerns and appearance-RS; 3) exposure to fitspiration images would be associated with higher levels of intentions to exercise for males compared to females. The male and female sample was a strength of the current study. It is important to note that past research focuses heavily on the female population. However, the lack of sex by experimental condition interaction effects observed in the current study suggests that males are affected by fitspiration in ways that are very similar to females. Future research should continue to explore the outcomes of fitspiration exposure, including variables beyond body satisfaction as well as by using male and female samples.

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**APPENDIX A**  
**Informed Consent Form**

**PURPOSE:** To understand people's reactions to images on social media.

**DURATION:** The length of time you will be involved with this study is approximately 30 minutes.

**PROCEDURES:** If you agree to be in this study, we will ask you to take part in two studies. In the first study, you will be asked to view several images (e.g., travel images or images of males and females during exercise) and answer questions about yourself. In the second study, you will complete a survey asking questions concerning yourself, your appearance, and your exercise. There are no right or wrong answers, and you can leave a question blank if you feel uncomfortable answering it.

**RISKS:** Some of the questions and images presented in this study could elicit emotional distress or boredom. Questions about the self and appearance-based images can evoke uncomfortable thoughts and feelings. Therefore, if at any point in the study you feel distressed, it is suggested that you withdraw from the study.

**CONFIDENTIALITY:** The records of this study will be kept private. Your name will not be attached to answers you provide. The investigators will have access to the raw data. In any sort of report that is published or presentation that is given, we will not include any information that will make it possible to identify a participant. Once collected, all data will be kept in secured files, in accord with the standards of SFASU, federal regulations, and the American Psychological

Association. Additionally, please remember that the researchers are not interested in any one person's responses. We are interested in how people, in general, respond to the measures.

**VOLUNTARY NATURE OF THE STUDY:** Your participation in this study is voluntary. In addition, you may choose to not respond to individual items in the survey. Your decision whether or not to participate will not affect your current or future relations with SFASU nor any of its representatives. If you decide to participate in this study, you are free to withdraw from the study at any time without affecting those relationships.

**CONTACTS AND QUESTIONS:**

Dr. Sarah Savoy: [savoysc@sfasu.edu](mailto:savoysc@sfasu.edu)

Kayla Ramsey: [ramseykm@jacks.sfasu.edu](mailto:ramseykm@jacks.sfasu.edu)

If you have questions or concerns regarding this study and would like to speak to someone other than the researchers, you may contact The Office of Research and Sponsored Programs (936) 468-6606.

**BENEFITS:** The benefits of participation are having your opinions and perspective included in this research.

Students recruited from participating introductory psychology classes will receive one credit for every 30 minutes of research participation. This study is worth one research credit. Students from other courses will receive credit in that class in an amount that is considered appropriate by the course instructor (e.g., 5 points extra credit or 1-2% of the overall points possible in the class).

**STATEMENT OF CONSENT**

The procedures of this study have been explained to me. The information that I provide is confidential and will be used for research purposes only. I am at least 18 years of age, and I understand that my participation is voluntary and that I may withdraw at any time without penalty. I have read the information in this consent form, and I agree to be in the study.

## APPENDIX B

### *Appearance-Rejection Sensitivity Scale*

Directions: Each of the items below describes different scenarios people might find themselves in. Please imagine yourself in each situation and circle the number that best indicates how you would feel. Your responses will be kept completely confidential so please be as honest as possible in your responses.

**1. Imagine this happened to you right now: You are leaving your house to go on a first date when you notice a blemish on your face.**

How concerned or anxious would you be that your date might be less attracted to you because of the way you looked?

Very Unconcerned

Very concerned

1    2    3    4    5    6

I would expect that my date would find me less attractive.

Very unlikely

Very likely

1    2    3    4    5    6

**2. Imagine this happened to you right now: You are trying on clothes at a department store and notice that you are a few pounds heavier than last week.**

How concerned or anxious would you be that others might be less attracted to you because of your physical appearance?

Very unconcerned						Very concerned
1	2	3	4	5	6	

I would expect that others would find me less attractive.

Very unlikely						Very likely
1	2	3	4	5	6	

**3. Imagine this happened to you right now: You post a photo of yourself on an internet dating service.**

How concerned or anxious would you be that people might not contact you because of the way you looked? (how physically attractive/unattractive you looked).

Very unconcerned						Very concerned
1	2	3	4	5	6	

I would not expect people to contact me because of the way I looked.

Very unlikely						Very likely
1	2	3	4	5	6	

**4. Imagine this happened to you right now: During dinner at a restaurant, you notice your date looking at an attractive person across the room.**

How concerned or anxious would you be that your date would be less interested in you because of the way you looked?

Very unconcerned						Very concerned
1	2	3	4	5	6	

I would expect that my date would be less interested in me because of the way I looked.







## APPENDIX C

### *Dysmorphic Concerns Questionnaire*

Instructions: For each of the items below, select the response that best describes how you feel, **RIGHT NOW, AT THIS VERY MOMENT**. Read the items carefully to be sure the response you choose accurately and honestly describes how you feel right now.

1. Right now, I feel very concerned about some aspect of my physical appearance.

0	1	2	3	4
Not at all	Slightly	Moderately	Very much so	Exceptionally so

2. Right now, I consider myself as being misformed or misshapen in some way (e.g., body build, muscle tone)

0	1	2	3	4
Not at all	Slightly	Moderately	Very much so	Exceptionally so

3. Right now, I consider my body to be malfunctional in some way (excessive body odor, sweating)

0	1	2	3	4
Not at all	Slightly	Moderately	Very much so	Exceptionally so

4. Right now I feel the need to consult a physician about these concerns

0	1	2	3	4
Not at all	Slightly	Moderately	Very much so	Exceptionally so

5. Right now, I am worried about a defect in my physical appearance/bodily functioning.

0	1	2	3	4
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Not at all      Slightly      Moderately      Very much so      Exceptionally s

6. Right now, how likely would you be to believe that something is wrong with your appearance or bodily functioning despite being told by a friend, family member, or doctor that nothing is wrong?

0                  1                  2                  3                  4

Not at all      Slightly      Moderately      Very much so      Exceptionally so

7. Right now, I feel I should spend time to cover up the defects in my appearance/bodily functioning.

0                  1                  2                  3                  4

Not at all      Slightly      Moderately      Very much so      Exceptionally so

## APPENDIX D

### *Intention to Exercise*

**Instructions:** For each of the items below, select the response that best describes how likely you are to perform each action in the next three months.

**Aerobic exercise includes any type of cardiovascular exercise (e.g. walking/running)**

1. How likely is it that you will talk to your friends about aerobic exercise in the next three months?

1 \_\_\_\_\_ 7

Not at all likely

Very Likely

2. How likely is it that you will borrow or buy equipment that can be used for aerobic exercise (workout clothes, special shoes) in the next three months?

1 \_\_\_\_\_ 7

Not at all likely

Very Likely

3. How likely is it that you will go to a recreation center or health club to do aerobic exercise in the next three months?

1 \_\_\_\_\_ 7

Not at all likely

Very Likely

4. How likely is it that you will actually do aerobic exercise for at least three times per week in the next three months?

1 \_\_\_\_\_ 7

Not at all likely

Very Likely

*Intention to Engage in Strength Training*

**Strength training includes exercises that are intended to improve strength and endurance [e.g. weight lifting (free weights/machines) and body weight exercises (push-ups/sit-ups)].**

1. How likely is it that you will talk to your friends about strength training in the next three months?

1 \_\_\_\_\_ 7  
Not at all likely Very Likely

2. How likely is it that you will borrow or buy equipment that can be used for strength training (workout clothes, special shoes) in the next three months?

1 \_\_\_\_\_ 7  
Not at all likely Very Likely

3. How likely is it that you will go to a recreation center or health club to do strength training workouts in the next three months?

1 \_\_\_\_\_ 7  
Not at all likely Very Likely

4. How likely is it that you will actually do strength training workouts for at least three times per week in the next three months?

1 \_\_\_\_\_ 7  
Not at all likely Very Likely

**APPENDIX E**  
**DEMOGRAPHIC INFORMATION**

Please provide the following information:

1) Sex you identify as:

- 1) Male
- 2) Female
- 3) Trans Male/Trans Man
- 4) Trans Female/Trans Woman
- 5) Genderqueer/Gender Non-Conforming
- 6) Different Identity

2) Age: \_\_\_\_\_

3) College Classification

- 1) Freshman
- 2) Sophomore
- 3) Junior
- 4) Senior
- 5) Graduate

4) Sexual Orientation:

- 1) Heterosexual (straight)
- 2) Homosexual (gay or lesbian)
- 3) Bisexual

4) Other (please specify)

5) I would describe my ethnicity as: (Choose one)

- 1) Hispanic or Latino
- 2) Not Hispanic or Latino

6) I would describe my race as: (Choose one)

- 1) American Indian/Alaska Native
- 2) Asian
- 3) Native Hawaiian or Other Pacific Islander
- 4) Black or African American
- 5) White
- 6) More than one race (please specify) \_\_\_\_\_
- 7) Other (please specify) \_\_\_\_\_

7) Height: \_\_\_\_\_

8) Weight: \_\_\_\_\_

9) Have you ever given birth to a child?

- 1) Yes
- 2) No
- 3) Prefer not to answer

10) Have you ever been diagnosed with an eating disorder or body dysmorphic disorder?

- 1) Yes
- 2) No
- 3) Prefer not to answer

11) If you have been diagnosed with an eating disorder or body dysmorphic disorder, please specify which body site/part, or function you are preoccupied with?

Please specify: \_\_\_\_\_

**APPENDIX F**  
**ATTENTION CHECK**

1. What did you see pictures of?
  - 1) Male exercise
  - 2) Female Exercise
  - 3) Travel
  - 4) None of the above

## **APPENDIX G**

### **DEBRIEFING**

Thank you for participating in this study. We would like to inform you about what we are studying. We are interested in how exposure to fitspiration images related to body dysmorphic concern, appearance-based rejection sensitivity, and intent to exercise. We asked you to view Instagram images (fitness or travel) and complete a series of questions. Should you have any questions or concerns regarding this research, please e-mail Sarah Savoy at [savoysc@sfasu.edu](mailto:savoysc@sfasu.edu). In addition, if you wish to speak with someone other than the researchers, you may contact The Office for the Protection of Human Research Subjects at Stephen F. Austin State University (936-468-6606).

If you would like to speak to a professional, information for counseling services and national confidential hotlines will be provided for you below.

Again, thank you for participating in our study.

#### **Counseling Information**

While none of the included measures are diagnostics, if you feel distressed from any part of this study and would like counseling or support, please see the contact information below for campus counseling services.

**Counseling Services - Stephen F. Austin State University**

Hours: 8:00 a.m. - 5:00 p.m. - Monday - Friday

(936) 468-2401



\*\*Located in the Rusk Building on the third floor. Appointments may be made in person or by telephone. If you are in need of assistance after hours, over the weekend, or over a holiday break, please call: University Police (936) 468-2608 or MHMR Crisis Line: (800) 392-8343.

**National Eating Disorder Services** - Trained operators will assist you, toll free, and confidential.

**Phone Support:** 1-800-931-2237

**Text Support:** “NEDA” to 741741

**Hours:** Monday-Thursday, 9:00 a.m. - 9:00 p.m.; Friday, 9:00 a.m. - 5:00 p.m. (closed on holidays)

**Suicide National Hotline:** 1-800-273-TALK (8255)

**National Alliance on Mental Illness** – Confidential, free crisis counseling

**Phone Support:** 800-950-6264

**Text Support:** “NAMI” to 741741

**Hours:** Monday-Friday 10:00 a.m. – 8:00 p.m. for phone support; 24/7 text support

**APPENDIX H**  
Fitspiration Images



Travel Images



### **Vita**

After completing high school at Commerce High School, in Commerce, Texas, Kayla attended Arkansas Tech University in Russellville, Arkansas. She completed her Bachelor of Arts in Psychology and Bachelor of Arts in Criminology in May of 2019. She then continued her education at Stephen F. Austin State University in August of 2019, where she received her Masters of Arts in Psychology in December of 2021.

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Publication Manual of the American Psychological Association (Seventh Edition)

This thesis was typed by Kayla Ramsey