TikTok, Body Image, and Eating Behavior: An Analysis of College-Age Women

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Abstract

Social networking sites (SNS) are very commonly used by college-age women, many spending significant amounts of time on multiple SNS daily. Because many of these involve posting and viewing images of other users, physical appearance and adherence to societal beauty ideals are heavily emphasized on SNS. Specifically, idealization of a thin female body is highly prevalent, many users utilizing photo-editing software to appear slimmer. Previous research has established connections between viewing appearance-focused social media content, dissatisfaction with one's physical appearance, and exhibition of disordered eating behaviors. Female users who are frequently exposed to content emphasizing the thin ideal may adopt this ideal for themselves and compare these types of bodies and their own, resulting in dissatisfaction if one perceives that their body does not match societal beauty standards and possibly leading to disordered eating habits as a means to alter their shape or weight. While a considerable body of research conducted in the last two decades exists examining the link between SNS engagement, body image, and eating behavior, almost none includes relatively new SNS TikTok. Hence, the present study aimed to investigate how TikTok use relates to body image concerns and disordered eating behaviors in young women. A sample of 157 women aged 18-23 completed questionnaire measures for TikTok use, body image concerns, and eating behaviors. Questions regarding both types of content consumed as well as time spent on the app each day were included. It was discovered that viewing content related to diet advice (e.g. weight loss, caloric deficit) and exercise was significantly related to elevated body image concerns and disordered eating habits while viewing style/fashion content was related to increased positive body image. Implications for future research exploring TikTok and its potential effects on users are also addressed.

Keywords: social media, eating disorders, body image, TikTok

TikTok, Body Image, and Eating Behavior: An Analysis of College-Age Women

A substantial body of literature has established that social networking sites (SNS) play a significant role in diffusing societal beauty standards and constructing a woman's sense of body image (Hawkins et al., 2004; Marks et al., 2020; Rounsefell et al., 2019; Santarossa & Woodruff, 2017). Body image is one's attitudes and perceptions of their body, including the thoughts, feelings, and beliefs that they hold regarding their physical appearance (Cash, 2004; Cash, 1990). Because of the emphasis that photo-based SNS like Instagram, Facebook, and Snapchat place on physical appearance, female users are frequently exposed to images of women with thin, toned bodies that exemplify the American thin ideal (Hawkins et al., 2004; Tiggemann & Zaccardo, 2015). Viewing these images can result in discontent with one's own appearance and pressure to attain a body image to those seen on SNS.

Body image is an important variable to study with regard to college-age students; previous research has demonstrated that body image plays a large role in shaping the college experience, impacting many spheres of life including social engagement/withdrawal, sexuality, day-to-day emotions, grooming practices, etc. (Cash & Fleming, 2002; Duarte et al., 2015; Lemer et al., 2013). Female college students with a more positive body image also tend to enjoy higher-quality social relationships on campus, stronger senses of optimism, increased enjoyment of sexual experiences, and even elevated academic achievement (Cash et al., 2004; Miles, 2009; Wiederman, 2010) A study conducted in 2002 found that female college students experienced more positive than negative consequences of their body image, meaning that most women in the sample experienced the benefits associated with a positive body image (Cash & Fleming, 2002). In the early 2000s, the primary forms of media consumed by female college students included television, movies, and magazines (Bair et al., 2012; Tiggeman, 2003). However, current college students engage with the media primarily by using the internet and SNS (Bair, 2012; Santarossa & Woodruff, 2017). As previous literature suggests a connection between SNS use and heightened body image concerns, it is imperative to examine how today's young women may be impacted by contemporary media (Marks et al., 2020; Tiggemann & Zaccardo, 2015).

Theoretical Framework

The sociocultural model and social comparison theory are crucial frameworks within which to examine body image and eating disorders (EDs). The sociocultural model outlines societal pressures experienced by women to conform to unrealistic body ideals and the ways by which these ideals are diffused and internalized (Rodgers, 2016; Stice, 1994). In the United States, this refers to the internalization of the "thin ideal," a concept that describes the immense value and beauty associated with a thin body present in American culture (Harper & Tiggemann, 2007; Hawkins et al., 2004). Women are exposed to these beauty standards and the thin ideal through various entities including peers, family members, and the media (social, internet, television, etc.) and may accept these ideals and expectations for themselves (Groesz et al., 2001; Thompson et al., 1999). Those who internalize societal ideals may then experience discontent toward their body when discrepancies exist between the ideal and their own (Rodgers, 2016). This resulting body image concerns can then elicit disordered eating behavior as a means to shift their appearance to one more consistent with the ideal (Marks et al., 2020; Rodgers, 2016; Thompson et al., 1999).

Social comparison theory refers to how individuals assess themselves, including their abilities, opinions, thoughts, and bodies by comparing themselves to others to gain an accurate evaluation of their self-worth (Festinger, 1954). This theory notes that individuals may engage in upward or downward social comparisons. Downward social comparisons occur when one

evaluates someone they perceive as inferior, resulting in increased self-esteem or positive feelings toward the self. Alternatively, upward social comparisons occur upon evaluating someone with higher status or other coveted characteristics and realizing one's own deficits in comparison (Festinger, 1954; Fox & Vendemia, 2016). Engaging in upward social comparison can elicit body image dissatisfaction in women, especially given that media inundates viewers with digitally edited images of models, actresses, and other women with a slim waist and hips, long legs, and thin thighs that are also 15% below the average weight for women in the United States (Hawkins et al., 2004). Despite how frequently this female body type is featured in the media, for most women, these aesthetic traits are quite difficult and even impossible to attain (Cataldo et al., 2021; Kleemans et al., 2016). Hence, when women compare themselves to female bodies seen in the media, dissatisfaction and insecurity around them can occur if their figures do not mimic said bodies, perceiving their physical appearance as inferior (Marks et al., 2020). Again, this body image dissatisfaction can lead to the development of disordered eating behaviors as a means to alter their body shape to better mirror those pictured in the media (Rodgers, 2016; Thompson et al., 1999).

Body Image and Disordered Eating Behaviors

Numerous studies have demonstrated connections between poor body image and other aspects of well-being and mental health. Consequences of body image dissatisfaction can include conditions like depression, anxiety, and body dysmorphic disorder as well as detrimental social outcomes like low self-esteem, social avoidance, and reduced sexual functioning (Cash et al., 2004; Cash & Fleming, 2002; Kotanski & Gullone, 1998). Additionally, poor body image is a significant risk factor for the onset of disordered eating; discontent with one's weight or shape may cause them to drastically alter eating habits as a means to change their appearance and attempt to achieve the thin frame idealized in Western media (Derenne & Berensin, 2006; Stice, 2002). ED patients frequently experience a preoccupation with weight or shape, including an immense fear of becoming overweight, constant desire to become thinner, and fixation on fat deposits on the body (Garner et al., 1982). ED symptomatology can include a range of other thoughts and feelings such as guilt after eating, constantly thinking about food, discomfort after eating desserts, and obsession regarding the caloric content of a meal (Garner et al., 1982). Finally, behaviors indicative of an ED may include significant restriction of caloric intake, binging episodes followed by purging (self-induced vomiting, laxative use), cutting food into very small pieces, eating slowly, and avoiding foods with sugar/carbohydrates (Garner et al., 1982).

Engaging in these types of behaviors can have serious medical implications. Second only to opioid addiction, EDs (specifically anorexia nervosa) have the highest mortality rate of all mental illnesses (Chesney et al., 2014). Medical complications that can arise as a result of EDs include esophageal or gastric rupture, weakening of heart muscle, amenorrhea (absence of menstruation), bradycardia (slowing of heart rate), cardiac arrhythmia, and esophagitis, as well as myriad others (Rome & Ammerman, 2003; Voderholzer et al., 2020). Even with medical treatment, long-term ED sufferers may experience lifelong effects, such as weakened bones and increased likelihood of preterm delivery, bleeding and nausea during labor, and miscarriage (Misra, 2008; O'Brien et al, 2017).

SNS and Body Image

SNS are extremely popular among women; in 2021, 78% of American women reported using one or more daily (Pew Research Center, 2021). Young adult women specifically receive significantly more news and information from the internet, including SNS, than any other type of media source (Bair, 2012; Santarossa & Woodruff, 2017). Certain ways of interacting with SNS are thought to be more detrimental to body image than others. Pictures and videos promoting weight-loss or healthy diets, exercise, or showcasing individuals with thin and/or toned bodies are commonly known online as "fitspiration" (combination of the words "fitness" and "inspiration") (Cataldo et al., 2021; Tiggemann & Zaccardo, 2015). In a study examining the relationship between Instagram use and body image in young adult females, those that reported viewing fitspiration more frequently also tended to report more dissatisfaction with their bodies (Marks et al., 2020). Following appearance-related accounts (e.g. fitness bloggers, models) on Instagram has also been linked with elevated desire for thinness, body-checking tendencies, and internalization of the thin ideal (Cohen et al., 2017). In addition, simply following or frequently viewing strangers' content tends to elicit more harmful social comparison than exclusively following friends and acquaintances (Lonergan et al., 2020; Marks et al., 2020). The heavy emphasis on physical appearance and the social comparison these apps facilitate often result in users fixating on others' photos, retouching their own prior to posting, and comparing how many "likes" and comments their posts garner to their peers. These comparisons can result in decreased confidence, poor body image, and increased anxiety and depressive symptoms (Kuss & Griffiths, 2011; Lonergan et al., 2020).

TikTok: A New Socializing Agent

Though myriad studies examine the relationship between SNS engagement, body image, and disordered eating, little to none of this literature includes the relatively new platform TikTok. Founded in 2016, the video-sharing platform skyrocketed in popularity in 2019 and only continues to grow; in February of 2022, TikTok was the third most downloaded app from the App Store (Anderson, 2020; Statista, 2022). TikTok allows users to upload and view short videos (three minutes or less), utilizing a powerful "algorithm" that takes user demographic information and engagement (what videos users "like," comment on, or watch completely through) to customize each user's experience. TikTok's home feed, called the "For You Page" (FYP), where users view videos gathered by the algorithm, contains a mix of posts from creators that they follow and those they do not. Unlike other forms of social media where users' feed eventually run out of new content those they follow post, TikTok provides users with an infinite amount of content, utilizing the algorithm to continue supplying videos for as long as the user remains on the app (Klug et al., 2021). Additionally, TikTok's powerful algorithm ensures that users are supplied with similar videos to those they engage with. For example, if a user "liked" one video of a model showing what she eats in a day, similar videos would show up on their FYP (Klug et al., 2021). As a result of this algorithm, TikTok quickly barrages users with videos covering similar subject matters.

While TikTok is a relatively new SNSs, it still contains aspects that mirror the same emphasis on physical appearance and the thin ideal seen on other SNS. Similarly to other platforms, many of TikTok's most popular influencers (social media personalities paid to promote brands and products to their following) exemplify the ideal body in Western cultures, the female influencers usually white, thin, and dressed in tight clothing that highlights their slim figures (Kennedy, 2020). A search of the keyword "fitspiration" in March 2022 indicated that TikTok videos containing the word had been viewed 114.9 million times. Many of these posts are video-versions of photo fitspiration traditionally seen on Instagram or Facebook; slim, athletic women showcasing workout routines, weight loss before-and-afters, and posing in front of a camera or mirror (interestingly, some videos under the "fitspiration" category feature style advice, using "fit" as an abbreviation for "outfit"). However, more commonly, TikTok videos place an emphasis on physical appearance without an explicit label. A quick scroll through the FYP of a college-age woman featured videos of a woman with a thin build explaining how she makes green juice, another trying on and reviewing a tightly-fitting dress, and yet another demonstrating how she utilizes a Stairmaster to slim her waist and achieve slightly visible abdominal muscles, none of which include the word "fitspiration"(Bartlett, 2022; Fairweather, 2022; Smith, 2022).

In addition to incorporating older health and appearance-focused trends, TikTok has also given birth to its own, more contemporary ones, one of which is the rise of "#thatgirl." Far more popular than videos including "#fitspiration", a search in March 2022 found that videos featuring "#thatgirl" had been viewed 3.4 billion times. The trend has also attracted the attention of the popular media, a July 2021 *Refinery29* headline reading "Who Is 'That Girl' & Why Is TikTok Obsessed With Her?" (Sharma, 2021). "That girl" is not a singular person, but an idealized female archetype that is the epitome of productivity, health, and wellness; "that girl" wakes up early to exercise or meditate, eats a healthy diet, journals, has a successful career, and always maintains an organized, aesthetically-pleasing appearance (Arshad, 2021; Sharma, 2021). Videos tagged with the term often feature conventionally attractive women recording their morning or bedtime routines, discussing their wellness habits, and showing their meals, outfits, and other aspects of their daily lives, all of which are carefully and beautifully styled (Arshad, 2021; Singer, 2021). These are topics that have been commonly discussed on the internet for decades, however, the "#thatgirl" trend explicitly suggests that the lifestyle seen in these videos is that of the "perfect" woman everyone aspires to be, outlining a vision of how she woman looks and behaves (Singer, 2021). While this trend was likely intended to encourage women to maintain a healthy personal and professional lifestyle, it also contains body ideal messaging that may have

implications for viewer body image. A search of "#thatgirl" on TikTok immediately yielded a video featuring a slim, toned woman in trendy athletic wear filming her reflection, the video caption reading "Join me for an incredible #2022 #newyearsresolution #healthyfood #healthgoals #thatgirl #weightloss #wellbeing" (Kaplan, 2021). The women pictured in the video, as well as the inclusion of terms like "health goals" and "weight loss" along with "that girl" imply that the ideal vision of femininity includes a certain body type. Hence, TikTok appears to contain the same wealth of appearance-related content that other SNS feature, meaning that female TikTok may be susceptible to the same messaging reinforcing the thin ideal other SNS emanate.

The Current Study

Due to the sparse amount of research including TikTok, the present study seeks to examine TikTok's potential effects on female users' body image and eating behavior. Specifically, a connection between frequent viewing of content with a heavy emphasis on physical appearance and idealization of thinness, elevated body image dissatisfaction, and increased exhibition of ED symptomatology is expected to surface. This hypothesis is based on the known impact of other forms of social media on body image and eating behavior established by literature examining numerous other SNS, including Instagram, Facebook, YouTube, and Snapchat. Because of the limited body of this research including TikTok, the relationship between these variables and TikTok use is exploratory.

Methods

Participants

157 participants were surveyed from November 2021 to January 2022. Eleven were removed for reporting a gender identity other than female, and one was removed after not completing any question after the consent form (N = 145). All included participants identified as female and ranged from 18 to 22 years old (M = 18.68, SD = 0.819). Sixty-one point four percent of participants reported to be Caucasian/white, 24.8% identified as Asian, 3.4% identified as Black/African American, 2.1% identified as other, and 8.3% identified as bi/multiracial.

Procedure

The participants in this study were recruited utilizing the University of Michigan Department of Psychology Intro Psych Pool. All procedures were approved by the University of Michigan Health & Behavioral Sciences Institutional Review Board. Those with access to this platform are University of Michigan students currently enrolled in introductory psychology courses, who are required to complete studies to receive course credit. A short description of this study and its eligibility requirements were listed on the Psych Pool, and if students were interested and fit the criteria, they could sign up to participate. Participants were required to be between the ages of 18 and 24 years old and must identify themselves as a female college student. Upon signing up for the study, participants were given the link directing them to the survey. This survey took approximately 15 minutes to complete.

Measures

Demographics: participants reported age, gender identity, and race/ethnicity.

TikTok use: participants were first asked to indicate how long they spend using TikTok on an average day using a five-point Likert scale (0 = none at all, 5 = 2 + hours). They were then given a list of 10 types of content likely shown to college-age women, some body and appearance-focused and some not. These categories include:

- 1. Comedy (skits, jokes, etc.)
- Diet advice (preparing/discussing food or diets plans, e.g. weight loss, caloric deficit, keto)

- 3. Educational (current events, academic topics, information/research on a given subject)
- 4. Home (interior decorating, design, cleaning tips)
- 5. Influencer lifestyle (morning routine, "that girl," day in the life, what I eat in a day, etc.)
- 6. Style (fashion advice, styling outfits, hair, makeup, discussing trends)
- 7. Exercise (workout suggestions, gym tutorials, etc.)
- 8. Other

Participants were then asked how many videos they see that fall under the listed categories each day (0-5 times a day, 5-15 times a day, or 15-30+ times a day).

Negative body image: the Body Shape Questionnaire (BSQ; Cooper et. al, 1987) was included to gauge negative feelings (such as insecurity, shame, and self-consciousness) participants held toward their bodies. Participants rated the extent to which they related to 34 items (e.g. "have you been so worried about your shape that you have been feeling you ought to diet?") on a six-point Likert scale (1 = never, 6 = always) with a theoretical score range from 34 to 204. Higher BSQ scores are indicative of marked concern with shape. In order to simplify data analysis, the BSQ was reverse coded so that all questions were similar in valence, meaning that the Likert scale was reversed so that 1 = always, 6 = never. For the sake of the present study, lower BSQ scores are indicative of marked concern with shape. The present study alpha for this measure was 0.97.

Positive body image: the Body Appreciation Scale-2 (BAS-2; Tylka & Wood-Barcalow, 2015) was used to measure positive feelings concerning one's body. Participants indicated on a four-point Likert scale (0 *=strongly agree*, 4 *= strongly disagree*) how often they experienced feeling appreciative and compassionate toward their bodies (e.g., "I appreciate the different and unique characteristics of my body"). The sum is then calculated with higher scores suggesting

higher global self-esteem and positive feelings toward the body. The present study alpha was 0.94.

Self-esteem: the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) was included to determine participants' general feelings toward themselves and their sense of self-worth. Respondents were given 10 items and a four-point Likert scale (0 = strongly disagree, 3 = strongly agree,) to rate the extent to which they agree with the statement (e.g. "I feel that I'm a person of worth, at least on an equal plane with others"). Scores range from zero to 30, with scores between 15 and 25 being within the normal range and scores below 15 suggesting low self-esteem. For ease of analysis, questions one, three, four, seven, and 10 were reverse coded so that questions were similar in valence, altering the scale to 0 = strongly agree, 3 = strongly disagree for the selected questions. The present study alpha was 0.90.

Eating behavior disturbances: the Eating Attitudes Test-26 (EAT-26; Garner et al., 1982) was used to determine if the participant engages in disordered eating behaviors (restriction, self-induced vomiting, use of laxatives, etc.). Part A of the EAT-26 includes questions about the participants' age, gender, height, current weight (lbs), and ideal weight. Part B includes 26 items that participants respond to with a Likert scale (3 = always, 2 = usually, 1 = often, 0 = sometimes, 0 = rarely, 0 = never) to indicate the extent to which they relate to each statement (e.g., "I avoid eating when I am hungry"). Part C includes a list of four disordered eating behaviors with a different Likert scale (0 = never, 0 = once a month or less, 0 = 2-3 times per week, 1 = once a week, 2 = 2-6 times per week, 3 = once a day or more) participants utilize to express how often they have engaged in that behavior for the past six months (e.g. "in the past 6 months, have you exercised more than 60 minutes a day to lose or to control your weight?"). Part C also included two questions about eating behavior that respondents answered "yes" or "no" to where 1 = yes, 0

= no (e.g. "have you ever lost 20 pounds or more in the past 6 months?"). Scores of 20 or above indicate that the participant has more eating concerns than the 86th percentile of healthy females, putting them above the clinical cutoff. Higher scores are indicative of an increased endorsement of disordered eating behaviors. During data analysis, Part C questions A through D were reverse coded so that $0 = once \ a \ day \ or \ more$, $0 = 2-6 \ times \ per \ week$, $0 = once \ a \ week$, $1 = 2-3 \ times \ per \ month$, $2 = once \ a \ month \ or \ less$, 3 = never. Questions E and F were also reverse coded so that 1 = no, 0 = yes. The present study alpha was 0.91. After reverse coding, lower scores were indicative of more disordered eating behaviors.

Data Analysis Plan

Correlations were calculated to determine possible relations between measures and frequency groups for each content category. After correlation analysis, one-way ANOVA was conducted to compare the effect of TikTok viewing time on the body image and endorsement of disordered eating behaviors. Comparisons were made among the number of times participants viewed each type of content per day and each measure.

Results

Correlation analysis revealed negative correlations between BSQ and viewing diet advice content (r=-0.310, p < 0.001) as well as EAT-26 and viewing diet advice content (r=-0.376, p < 0.001). In addition, there was a significant positive correlation between BAS and viewing style content (r=0.189, p < 0.05). Finally, there were significant negative correlations between BSQ and viewing exercise content (r=-0.188, p < 0.05) as well as EAT-26 and viewing exercise content (r=-0.217, p < 0.05) (see Table 1).

There were significant differences in BSQ and among the diet advice frequency groups at the p < 0.05 level for the zero to five times per day and 15-30 times per day groups F(2, 138) =

7.313, p = <0.001. Results indicated that the 15-30 times per day group had significantly lower scores on the BSQ (M = 3.435, SD = 0.964) than the zero to five times per day group (M = 4.284, SD = 1.058). Therefore, participants that viewed more diet advice-related content on TikTok (15-30 times per day) had significantly elevated body image dissatisfaction and concerns with body shape than participants that viewed diet advice-related content less frequently (zero to five times per day).

Additionally, there were significant differences in EAT-26 scores among the diet advice frequency groups at the p < 0.05 level for the zero to five times per day and 15-30 times per day groups F(2, 137) = 11.492, p = <0.001). The 15-30 times per day group had significantly lower scores on the EAT-26 (M = 3.788, SD = 0.780) than the zero to five times per day group (M = 4.476, SD = 0.612). These results indicate that participants that viewed more diet advice-related content on TikTok (15-30 times per day) exhibited significantly higher endorsement of disordered eating habits than participants that viewed diet advice-related content less frequently (zero to five times per day).

Analysis of frequency participants viewed other content categories as well as time (in minutes) spent on TikTok per day yielded no significant results. There was no significant difference in results across racial/ethnic groups.

Discussion

Due to the lack of SNS research including TikTok, the present study sought to examine how viewing different types of content on TikTok would impact the well-being of female college students. Based on the sociocultural model and social comparison theory, as well as previous findings regarding appearance-focused SNS use, this study hypothesized that TikTok users that viewed more appearance-focused content would exhibit elevated body image dissatisfaction and disordered eating behaviors (Cataldo et al., 2021; Cohen et al., 2017; Festinger, 1954; Thompson et al., 1999). Participants were given a list of categories to indicate how often they viewed each type of content per, four of which were appearance-based (including diet advice, influencer lifestyle, style, and exercise). The data suggested that viewing elevated amounts of diet advice was significantly related to increased body image concern and disordered eating behaviors in female college student TikTok users. A correlation was also found between viewing exercise content and increased body image concern and disordered eating behaviors. Interestingly, a weaker but significant correlation between viewing style content and positive body image also emerged.

Diet and Exercise Content

This study's finding regarding diet advice is similar to those in previous studies examining the relationship between diet-related content on other SNS, body image, and eating habits. An analysis of fitness content on YouTube (another video-sharing platform) determined that dietary restrictions, intermittent fasting, and calorie-counting or restricting were commonly discussed by popular fitness bloggers (Carotte et al., 2017). Further, both women who consume and post this type of content are more likely to place a high value on thinness, exhibit ED symptomatology, and have been diagnosed with an ED (Boepple & Thompson, 2014; Carotte et al., 2015). Beyond these findings, there is relatively little research examining the effect of consuming diet advice on SNS and subsequent body image concerns and ED symptomatology.

Dieting techniques popularly discussed on TikTok and other SNS, including low-calorie, low-sugar, ketogenic, intermittent fasting, and clothes, are frequently utilized as a way through which individuals can impact their weight or shape (Carotte et al., 2017). Because the body type idealized in Western culture is one that is difficult, if not impossible, for many women to attain,

viewing diet advice could elicit disappointment and body image concerns in female users if they feel they are following a diet regimen similar to the one in the video but failing to see to the results they desire or achieve a similar body to the creator of the post (Robinson et al., 2017; Hawkins et al., 2004). Viewers may engage in upward social comparison upon identifying an individual with a more nutritious diet than their own and reflect on their own shortcomings in this regard, causing negative feelings toward the self.

Western cultures often place a high moral value on health, meaning that unhealthy eating is often seen as a moral failing (Conrad, 1994; Fielding-Singh, 2018). Americans often attach moral significance to food, perceiving consumption of healthy foods as morally positive and consumption of unhealthy food as morally negative (Cairns & Johnston, 2015; Fielding-Singh 2017). A study by Fielding-Singh (2018) examining beliefs held by American adolescents about morality, diet, socioeconomic status (SES), and feelings toward the self revealed that participants were easily able to identify whether or not the diet that they consume at home would be considered healthy. Despite the type of diet they consume, participants universally viewed healthy eating as morally positive, characterizing it with words like "right," "good," or "better" (Fielding-Singh, 2018). Therefore, high SES students that were generally able to maintain a healthy diet perceived their diets as affirming to their sense of self-worth, expressing pride that they barely ever consumed fast food or disgust regarding families that do. Low SES students that consumed largely unhealthy diets described embarrassment when comparing their diets to those of wealthier peers, accrediting their diets not only to financial limitations but also moral failures like carelessness, laziness, and poor self-control (Fielding-Singh, 2018). While Fielding-Singh (2018) did not explicitly measure body image in her sample of adolescents, self-worth can be closely tied to body image. Individuals with a low sense of self-worth often exhibit

dissatisfaction with their appearance, particularly when they frequently draw appearance-based social comparisons (Overstreet & Quinn, 2012). Additionally, body image is complex; feelings one holds regarding their physical appearance, beliefs about the self, and cultural and interpersonal experiences are also incorporated into how one perceives their body (Banfield & McCabe, 2002; Cash et al., 2003; Horn et al., 2011; O'Dea, 2012). Furthermore, viewing diet advice content on TikTok may serve as a reminder of the inconsistencies between the healthy diet on the screen and a user's own imperfect diet, resulting in feelings of moral inferiority and decreased self-worth and potentially contributing to poorer body image.

As hypothesized, the present study also found a correlation between viewing exercise content, elevated body image concerns, and increased exhibitions of ED symptomatology. This content frequently features women with thin, toned, or athletic bodies engaging in physical exercise and demonstrating fitness tutorials (Robinson et al., 2017; Tiggemann & Zaccardo, 2015). Because these female viewers are frequently exposed to exercise content emphasizing the thin ideal, they may adopt this ideal for themselves and draw upward comparisons between these types of bodies and their own (Fox & Vendemia, 2016; Groesz et al., 2001). Feelings of discontent regarding their body can develop if one perceives that their body does not match societal beauty standards like those featured in these videos, possibly leading to disordered eating habits as a means to alter their shape or weight (Rodgers, 2016; Thompson et al., 1999).

This result is consistent with numerous studies examining links between viewing similar fitspiration or exercise content. Research conducted by Tiggeman and Zaccardo (2015) revealed that female college students reported increased body image dissatisfaction after viewing Instagram posts promoting exercise as opposed to those that had been shown neutral images, facilitated by upward social comparison between the appearance of the woman pictured and their own. Similarly, Caltaldo et al. (2021) demonstrated that young adults who frequently viewed exercise-focused fitspiration content commonly experience discontent with their physical appearance and dysfunctional beliefs regarding nutrition and exercise. These individuals also exhibited an increased risk of developing EDs as well as other psychopathological symptoms including anxiety, depression, and substance abuse (Cataldo et al., 2021). Another study conducted by Prichard et al. (2018) indicated that exposure to fitness images had a negative impact on body image as well as mood in young adult women, further underlining the potential detriments of viewing exercise-focused media.

Diet and exercise may also be particularly sensitive subjects for female undergraduate students, particularly those in their freshman or sophomore year (the majority of women in my sample; age M = 18.68). They may experience anxiety regarding the dreaded "Freshman 15," a colloquial term referring to the widespread idea that students commonly experience weight gain during their first year of college (Delinsky & Wilson, 2007; Vella-Zarb & Elgar, 2010). In addition, freshman college students may be adjusting to a lifestyle different from that at home; limited access to fresh groceries, meals prepared primarily by a dining hall, increased availability of alcohol as well as newfound independence, minimal free time, stress, and adaptation to the fast-paced "college lifestyle" may all contribute to poor nutrition and exercise habits while on campus (Harris, 2017; Schweitzer et al., 2016). Therefore, viewing content featuring the preparation or discussion of healthy food and physical exercise may be especially successful at eliciting negative affect in college students.

Style and Influencer Content

The data revealed no connection between viewing style and influencer content, elevated body image dissatisfaction, and increased endorsement of disordered eating habits, a finding inconsistent with the study hypothesis. Interestingly, viewing style content on TikTok was slightly correlated with positive body image, a finding contrary to the suggested effect that viewing content of this nature has on users of other SNS (Cohen et al., 2017; Santarossa & Woodruff, 2017). The lack of correlation between viewing influencer and style content and increased body image concerns and disordered eating habits may indicate a difference in the nature of this content on TikTok as opposed to other SNS, despite the apparent focus on beauty and physical appearance they seem to share (e.g. "#thatgirl" trend).

Celebrity/influencer images on photo-based SNS such as Facebook or Instagram have frequently been digitally manipulated prior to posting, perhaps helping to explain why viewing influencer content did not elicit body image dissatisfaction in TikTok viewers in the same fashion it does with other SNS (Kleemans et al., 2016; Wick & Keel, 2020). Utilizing Photoshop, Facetune, or other photo editing software programs is common practice among Instagram influencers; social media star Kim Kardashian has fallen under fire multiple times after posting images of her body with obvious distortions and narrowing her eight-year-old daughter's face on Instagram posts (Swerzenski, 2021). However, manipulating images is not exclusively practiced by celebrities. A wide variety of photo editing apps and even built-in features on SNS allow any user to manipulate their pictures however extensively they choose. For young women, editing Instagram photos commonly involves narrowing the waist, enlarging breasts, widening hips and glutes, slimming thighs or arms, whitening teeth, or removing skin blemishes (Chae, 2017; Fox & Vendemia, 2016; Lamp et al., 2019). While posting manipulated images has been associated with poorer body image and ED risk, viewing manipulated images can have similar effects (Clay et al., 2005; Lamp et al., 2019; Wick & Keel, 2020). Scrolling through a feed full of images of women that have been edited to match the idealized body type and eliminate flaws can cause

female SNS users to engage in upward social comparisons, resulting in negative feelings toward their own bodies when they determine that their bodies may not mirror those in the edited images (Fox & Vendemia, 2016). Because TikTok is a video-based platform rather than a photo-based SNS, perhaps the bodies featured in TikTok content have not been subject to as much digital manipulation as content on photo-based platforms, such as editing one's body while moving might present more of a technical challenge than editing a still photo. While an extensive volume of research has been conducted regarding the editing of photos on SNS, very little is known about how videos are digitally manipulated on SNS, and the potential effects viewing such videos may have on user mental health (Chae, 2017; Clay et al., 2005; Fox & Vendemia, 2016).

There also lies the possibility that TikTok is simply a more accepting platform, allowing users to maintain a more authentic presence. Such sentiment seems to be present in the popular media; an article in British news outlet *The Sunday Times* stated that "Where Instagram is glossy and filtered, TikTok is goofy and relatable" (Kennedy, 2020; The Sunday Times, 2020). As opposed to Instagram photos, wherein people are posed and smiling in perfect lighting, content on TikTok is often informal, featuring users filming in a room of their house, casually speaking to the camera (Kennedy, 2020; Masciantonio et al., 2021). Content on TikTok is also commonly characterized as "raw," "homemade," and "innovative" on technology blogs (Staci, 2021; TikTok, 2021). Hence, it is possible that the rigid adherence to the thin ideal and pressure for perfection present on other SNS platforms may not exist to the same extent on TikTok, perhaps meaning that viewing some types of TikTok content does not have as strong an impact on user body image or eating behaviors. Research by Masciantonio et al. (2021) examining Facebook, Twitter, Instagram, and TikTok engagement and different aspects of well-being suggests that TikTok may have a weaker impact on user mental health in general. While

Facebook, Twitter, and Instagram use demonstrated significant positive and negative correlations to various components of well-being (e.g. social support, upward social comparison, negative affect), no correlations were found between TikTok and any aspect of well-being (Masciantonio et al., 2021). Recent research suggests that nuanced differences in the ways that users of newer SNS like TikTok engage may have different implications for body image and well-being than more heavily studied platforms, providing acceptance and community for a wider variety of users (Rogers, 2021; Vandenbosch et al., 2021).

Another potentially relevant factor is the growing popularity of the body positivity movement. In recent years, the concept of body positivity has emerged in order to push back against the constant stream of images in popular and social media promoting unattainable and unrealistic appearance ideals (Cohen et al., 2020; Cwynar-Horta, 2016). Content labeled with "#bodypositivity" frequently features a wide range of body types and shapes that have typically been underrepresented in popular media, often highlighting physical characteristics that are a point of insecurity for many women, such as stomach rolls, cellulite, scars, or stretch marks (Cohen et al., 2020; Vandenbosch et al., 2021). These posts are often accompanied by captions or overlying text with messages like "daily reminder social media is fake…you're still beautiful no matter the imperfection" and "you are a work of art no matter what you eat or what size you are or how different you are" (Brown, 2022; Liv, 2021). This type of content aims to normalize media images of realistic, unedited bodies and promote acceptance of a more diverse range of shapes, encouraging women to see beauty in their appearance regardless of whether or not it matches the traditionally idealized body type (Vandenbosch et al., 2021; Zavattaro, 2020).

While heavily-studied platforms like Instagram and Snapchat were released in the very early 2010s, TikTok rose to prominence in the later years of the decade, meaning that it was

subject to both thin-ideal and body positive influences from its very genesis (Colao, 2012; Constine, 2017). A search on TikTok in March 2022 revealed that videos with the hashtag "bodypositivity" had been viewed 21.2 billion times, ergo, it seems possible that body positive sentiment is stronger or more prevalent in the content on TikTok than on older platforms. Furthermore, it is possible that appearance-based content traditionally containing thin ideal messaging on SNS is balanced with body positive content on TikTok, making TikTok engagement less detrimental to body image than other SNS. This possibility may be relevant to the findings of this study, as the female college students who frequently viewed influencer and fashion content on TikTok did not exhibit the expected adverse effects based on literature examining similar variables and viewing the same type of content on other photo-based SNS (Cohen et al., 2017; Lonergan et al., 2020; Marks et al., 2020). Increased body positive sentiment expressed in influencer lifestyle and style videos may present an alternative version of beauty to the narrow and unrealistic beauty standards often seen in the media, exposing viewers to a more diverse and accepting range of sociocultural beauty ideals. Viewers of content infused with body positivity may also engage in fewer harmful upward social comparisons, as the bodies and physical characteristics of the women featured in these videos may mirror those of viewers more closely. Therefore, the prevalence of body positive sentiment on TikTok may account in part for the lack of correlation between viewing influencer content, body image dissatisfaction, and disordered eating, as well as the correlation between viewing style content and positive body image; perhaps, viewing such content can have positive effects on body image, encouraging users to regard their body with beauty and acceptance even if it is inconsistent with the thin ideal.

Limitations

The correlational nature of this study has indicated a correlation between viewing diet advice and exercise content, increased body image concern, and higher exhibition of ED symptomatology. However, the directionality of this relationship is unknown, and it is possible this relationship is bidirectional. It is a possibility that women with poor body image or EDs are actively seeking out advice concerning diet and exercise to change their weight or shape. A longitudinal or experimental study would be necessary in order to establish the direction of the relationship between content viewed on TikTok, body image concerns, and disordered eating. Additionally, the participants surveyed in this study are predominantly caucasian/white, meaning that it has limited generalizability to more racially diverse groups. Further studies conducted with a more racially/ethnically diverse sample will better establish the relationship between these variables and improve generalizability for a more diverse population. Finally, the sample size was relatively small, meaning that it may be generalizable for white college-age women, but a larger sample will be necessary for results that are generalizable for the general population.

Implications and Directions for Future Research

The present study adds to the literature on social media, body image, and EDs by indicating a significant link between viewing diet advice content on TikTok, elevated body image dissatisfaction, and increased endorsement of disordered eating behaviors in college-age women. The present study also found correlations between viewing exercise content, body image concerns, and ED symptomatology. These findings are consistent with other studies examining similar types of "fitspiration" on other SNS (Cataldo et al., 2021; Cohen et al., 2017; Tiggeman, 2003). However, these correlations were not observed between viewing other types of appearance-focused content on TikTok. While no correlations were found between viewing influencer content and any of the measured variables, viewing style content was correlated with positive body image. This finding differs from those of many previous studies examining celebrity/influencer and fashion-focused content and other SNS platforms in samples of young adult women (Cataldo et al., 2021; Cohen et al., 2017; Tiggeman, 2003). Hence, these types of content on TikTok may diffuse different sociocultural messages regarding appearance ideals than traditionally seen on other SNS, as body positive sentiment and the decreased prevalence of digitally manipulated bodies potentially mediates detrimental effects on body image. Given that the present study is an exploratory one, future research examining TikTok and its effects on users will likely aid in the explanation of these findings. The present study also underscores the lack of psychological research including TikTok. For instance, while much is known regarding how viewing and posting digitally enhanced photos on SNS like Instagram, little information exists regarding how TikTok users manipulate their physical appearance in videos or how prevalent these practices are. Because of the lack of research including TikTok, the effect of potentially detrimental aspects of the app are unknown; further investigation into the extent to which these components of TikTok impact user body image, eating behavior, and overall well-being will assist in clarifying how TikTok's user experience compares to those of other SNS.

Though the present study focused on young adult women, further research will become paramount as TikTok becomes increasingly popular, particularly among children. Childhood and adolescence are pivotal periods for the development of self-esteem and body image, meaning that SNS can be especially impactful on the mental health of these groups (Pea et al., 2012; Rodgers, 2016; Wang & Veugelers, 2008). A recent study conducted by research and advisory company Forrester determined that 63% of American ages 12-17 used TikTok weekly in 2021, as opposed to 57% for Instagram. This finding demonstrates a notable switch from 2020, wherein 61% used Instagram and 50% used TikTok weekly (Forrester, 2021). Another study conducted by parental control software company Qustodio determined that children as young as four to 15 years of age spend an average of 80 minutes per day on TikTok (Perez, 2020). Hence, as TikTok is becoming increasingly prevalent in children's lives, it is important that future research examines the potential impacts of TikTok content consumption on the mental health of children as well as adults. Further exploration is necessary to examine possible mental health impacts TikTok use may impose as well as the nuanced differences between TikTok's user experience and those of other popular SNS.

References

- Anderson, K. E. (2020). Getting acquainted with social networks and apps: It is time to talk about TikTok. *Library Hi Tech News*, 37(4), 7–12. https://doi.org/10.1108/LHTN-01-2020-0001
- Arshad, S. (2021, August 11). What does it mean to be "That Girl"? Bustle. https://www.bustle.com/life/what-does-that-girl-mean-tiktok-viral-trend
- Bair, C. E., Kelly, N. R., Serdar, K. L., & Mazzeo, S. E. (2012). Does the Internet function like magazines? An exploration of image-focused media, eating pathology, and body dissatisfaction. *Eating Behaviors*, 13(4), 398–401.

https://doi.org/10.1016/j.eatbeh.2012.06.003

- Banfield, S. S., & McCabe, M. P. (2002). An evaluation of the construct of body image. *Adolescence*, *37*(146), 373–393.
- Bartlett, K. [@katebartlett]. (2022, February 20). *Like seriously, all my money.* @revolve #revolveme everything is in my revolve faves! [video]. TikTok.

https://vm.tiktok.com/ZTdaSeBLX/

Boepple, L., & Thompson, J. K. (2014). A content analysis of healthy living blogs: Evidence of content thematically consistent with dysfunctional eating attitudes and behaviors.
 International Journal of Eating Disorders, 47(4), 362–367.

https://doi.org/10.1002/eat.22244

Brennan, L., Klassen, K., Weng, E., Chin, S., Molenaar, A., Reid, M., Truby, H., & McCaffrey, T. A. (2020). A social marketing perspective of young adults' concepts of eating for health: Is it a question of morality? *International Journal of Behavioral Nutrition and Physical Activity*, *17*(1), 44. <u>https://doi.org/10.1186/s12966-020-00946-3</u>

- Brown, T. [@glamoroustre]. (2022, January 21). You are a work of art no matter what you eat or what size you are or how different you are [video]. TikTok. https://vm.tiktok.com/ZTdm5EjNH/
- Cairns, K., & Johnston, J. (2015). Choosing health: Embodied neoliberalism, postfeminism, and the "do-diet." *Theory and Society*, *44*(2), 153–175.

https://doi.org/10.1007/s11186-015-9242-y

- Carrotte, E. R., Prichard, I., & Lim, M. S. C. (2017). "Fitspiration" on social media: A content analysis of gendered images. *Journal of Medical Internet Research*, 19(3), e95. <u>https://doi.org/10.2196/jmir.6368</u>
- Carrotte, E. R., Vella, A. M., & Lim, M. S. (2015). Predictors of "liking" three types of health and fitness-related content on social media: A cross-sectional study. *Journal of Medical Internet Research*, 17(8), e4803. <u>https://doi.org/10.2196/jmir.4803</u>
- Cash, T. F. (1990). The psychology of physical appearance: Aesthetics, attributes, and images. In *Body images: Development, deviance, and change* (pp. 51–79). Guilford Press.
- Cash, T. F. (2004). Body image: Past, present, and future. *Body Image*, *1*(1), 1–5. <u>https://doi.org/10.1016/S1740-1445(03)00011-1</u>
- Cash, T. F., & Fleming, E. C. (2002). The impact of body image experiences: Development of the body image quality of life inventory. *International Journal of Eating Disorders*, 31(4), 455–460. <u>https://doi.org/10.1002/eat.10033</u>
- Cash, T. F., Jakatdar, T. A., & Williams, E. F. (2004). The Body Image Quality of Life Inventory:
 Further validation with college men and women. *Body Image*, 1(3), 279–287.
 https://doi.org/10.1016/S1740-1445(03)00023-8

Cataldo, I., De Luca, I., Giorgetti, V., Cicconcelli, D., Bersani, F. S., Imperatori, C., Abdi, S., Negri, A., Esposito, G., & Corazza, O. (2021). Fitspiration on social media: Body-image and other psychopathological risks among young adults. A narrative review. *Emerging Trends in Drugs, Addictions, and Health, 1*, 100010.

https://doi.org/10.1016/j.etdah.2021.100010

- Chae, J. (2017). Virtual makeover: Selfie-taking and social media use increase selfie-editing frequency through social comparison. *Computers in Human Behavior*, 66, 370–376. <u>https://doi.org/10.1016/j.chb.2016.10.007</u>
- Chesney, E., Goodwin, G. M., & Fazel, S. (2014). Risks of all-cause and suicide mortality in mental disorders: A meta-review. *World Psychiatry*, 13(2), 153–160. <u>https://doi.org/10.1002/wps.20128</u>
- Clay, D., Vignoles, V. L., & Dittmar, H. (2005). Body Image and self-esteem among adolescent girls: Testing the influence of sociocultural factors. *Journal of Research on Adolescence*, *15*(4), 451–477. <u>https://doi.org/10.1111/j.1532-7795.2005.00107.x</u>
- Cohen, R., Irwin, L., Newton-John, T., & Slater, A. (2019). #bodypositivity: A content analysis of body positive accounts on Instagram. *Body Image*, 29, 47–57. https://doi.org/10.1016/j.bodyim.2019.02.007
- Cohen, R., Newton-John, T., & Slater, A. (2017). The relationship between Facebook and Instagram appearance-focused activities and body image concerns in young women.
 Body Image, 23, 183–187. <u>https://doi.org/10.1016/j.bodyim.2017.10.002</u>
- Cohen, R., Newton-John, T., & Slater, A. (2021). The case for body positivity on social media: Perspectives on current advances and future directions. *Journal of Health Psychology*, 26(13), 2365–2373. <u>https://doi.org/10.1177/1359105320912450</u>

Colao, J. J. (2013, July 19). Snapchat: The Biggest No-Revenue Mobile App Since Instagram. Forbes.

https://www.forbes.com/sites/jjcolao/2012/11/27/snapchat-the-biggest-no-revenue-mobile -app-since-instagram/

- Conrad, P. (1994). Wellness as virtue: Morality and the pursuit of health. *Culture, Medicine and Psychiatry*, *18*(3), 385–401. <u>https://doi.org/10.1007/BF01379232</u>
- Constine, J. (2017, April 26). *Instagram's growth speeds up as it hits 700 million users*. TechCrunch+.

https://techcrunch.com/2017/04/26/instagram-700-million-users/

Cooper, P. J., Taylor, M. J., Cooper, Z., & Fairbum, C. G. (1987). The development and validation of the body shape questionnaire. *International Journal of Eating Disorders*, 6(4), 485–494.

https://doi.org/10.1002/1098-108X(198707)6:4<485::AID-EAT2260060405>3.0.CO;2-O

- Cwynar-Horta, J. (2016). The commodification of the body positive movement on Instagram. *Stream: Interdisciplinary Journal of Communication*, 8(2), 36–56. https://doi.org/10.21810/strm.v8i2.203
- Delinsky, S. S., & Wilson, G. T. (2008). Weight gain, dietary restraint, and disordered eating in the freshman year of college. *Eating Behaviors*, 9(1), 82–90. https://doi.org/10.1016/j.eatbeh.2007.06.001
- Derenne, J. L., & Beresin, E. V. (2006). Body Image, media, and eating disorders. *Academic Psychiatry*, *30*(3), 257–261. <u>https://doi.org/10.1176/appi.ap.30.3.257</u>

- Duarte, C., Ferreira, C., Trindade, I. A., & Pinto-Gouveia, J. (2015). Body image and college women's quality of life: The importance of being self-compassionate. *Journal of Health Psychology*, 20(6), 754–764. <u>https://doi.org/10.1177/1359105315573438</u>
- Fairweather, A. [@amiefitnesss]. (2022, February 21). The best!! Do 10 mins before your workout and 10 mins after :) #gymtok #gymmotivation [video]. TikTok. <u>https://vm.tiktok.com/ZTdaBBY58/</u>
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117–140. https://doi.org/10.1177/001872675400700202
- Fielding-Singh, P. (2017). A taste of inequality: Food's symbolic value across the socioeconomic spectrum. *Sociological Science*, *4*, 424–448. <u>https://doi.org/10.15195/v4.a17</u>
- Fielding-Singh, P. (2019). You're worth what you eat: Adolescent beliefs about healthy eating, morality and socioeconomic status. *Social Science & Medicine*, *220*, 41–48.

https://doi.org/10.1016/j.socscimed.2018.10.022

Forrester. (2021). Forrester Analytics Consumer Technographics® US Youth Survey, 2021 [Data set]. Forrester.

https://www.forrester.com/Forrester+Analytics+Consumer+Technographics+US+Youth+ Survey+2021/-/E-SUS6711

- Fox, J., & Vendemia, M. A. (2016). Selective self-Presentation and social comparison through photographs on social networking sites. *Cyberpsychology, Behavior, and Social Networking*, 19(10), 593–600. <u>https://doi.org/10.1089/cyber.2016.0248</u>
- Garner, D. M., & Garfinkel, P. E. (1979). The Eating Attitudes Test: An index of the symptoms of anorexia nervosa. *Psychological Medicine*, 9(2), 273–279. <u>https://doi.org/10.1017/S0033291700030762</u>

- Groesz, L. M., Levine, M. P., & Murnen, S. K. (2002). The effect of experimental presentation of thin media images on body satisfaction: A meta-analytic review. *International Journal of Eating Disorders*, 31(1), 1–16. <u>https://doi.org/10.1002/eat.10005</u>
- Harper, B., & Tiggemann, M. (2008). The Effect of thin ideal media images on women's self-objectification, mood, and body image. *Sex Roles*, 58(9), 649–657. https://doi.org/10.1007/s11199-007-9379-x
- Harris, D. A. (2017). Just the "typical college diet": How college students use life stages to account for unhealthy eating. *Symbolic Interaction*, 40(4), 523–540. https://doi.org/10.1002/symb.280
- Hawkins, N., Richards, P. S., Granley, H. M., & Stein, D. M. (2004). The impact of exposure to the thin-ideal media image on women. *Eating Disorders*, 12(1), 35–50. https://doi.org/10.1080/10640260490267751
- Horn, T. S., Newton, J. H., & Evers, J. (2011). Gender conceptualizations in female high school seniors: Relationships with global self-worth and multiple measures of body image. *Sex Roles*, 65(5), 383–396. <u>https://doi.org/10.1007/s11199-011-0028-z</u>
- Kaplan, L. [@liv.kaplan]. (2021, December 19). Join me for an incredible #2022 #newyearsresolution #healthyfood #healthgoals #weightloss #wellbeing [video]. TikTok. <u>https://vm.tiktok.com/ZTdahf3Uf/</u>
- Kennedy, M. (2020). 'If the rise of the TikTok dance and e-girl aesthetic has taught us anything, it's that teenage girls rule the internet right now': TikTok celebrity, girls and the Coronavirus crisis. *European Journal of Cultural Studies*, *23*(6), 1069–1076. https://doi.org/10.1177/1367549420945341

- Kleemans, M., Daalmans, S., Carbaat, I., & Anschütz, D. (2018). Picture perfect: The direct effect of manipulated Instagram photos on body image in adolescent girls. *Media Psychology*, 21(1), 93–110. <u>https://doi.org/10.1080/15213269.2016.1257392</u>
- Klug, D., Qin, Y., Evans, M., & Kaufman, G. (2021). Trick and please. A mixed-method study on user assumptions about the TikTok algorithm. *13th ACM Web Science Conference* 2021, 84–92. <u>https://doi.org/10.1145/3447535.3462512</u>
- Kostanski, M., & Gullone, E. (1998). Adolescent body image dissatisfaction: Relationships with self-esteem, anxiety, and depression... *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 39(2), 255. <u>https://doi.org/10.1017/S0021963097001807</u>
- Kuss, D. J., & Griffiths, M. D. (2011). Online social networking and addiction—A review of the psychological literature. *International Journal of Environmental Research and Public Health*, 8(9), 3528–3552. <u>https://doi.org/10.3390/ijerph8093528</u>
- Lamp, S. J., Cugle, A., Silverman, A. L., Thomas, M. T., Liss, M., & Erchull, M. J. (2019). Picture Perfect: The relationship between selfie behaviors, self-objectification, and depressive symptoms. *Sex Roles*, 81(11), 704–712.

https://doi.org/10.1007/s11199-019-01025-z

- Lemer, J. L., Blodgett Salafia, E. H., & Benson, K. E. (2013). The relationship between college women's sexual attitudes and sexual activity: The mediating role of body image.
 International Journal of Sexual Health, 25(2), 104–114.
 https://doi.org/10.1080/19317611.2012.722593
- Liv [livii_loou]. (2021, March 12). Y'all are still beautiful 💚 #confident #bodypositivity #inperfection #socialmediaisfake #bodyconfidence [video]. TikTok. https://vm.tiktok.com/TTPdm5we6J/

- Lonergan, A. R., Bussey, K., Fardouly, J., Griffiths, S., Murray, S. B., Hay, P., Mond, J., Trompeter, N., & Mitchison, D. (2020). Protect me from my selfie: Examining the association between photo-based social media behaviors and self-reported eating disorders in adolescence. *International Journal of Eating Disorders*, *53*(5), 755–766. https://doi.org/10.1002/eat.23256
- Marks, R. J., De Foe, A., & Collett, J. (2020). The pursuit of wellness: Social media, body image and eating disorders. *Children and Youth Services Review*, *119*, 105659.
 https://doi.org/10.1016/j.childyouth.2020.105659
- Masciantonio, A., Bourguignon, D., Bouchat, P., Balty, M., & Rimé, B. (2021). Don't put all social network sites in one basket: Facebook, Instagram, Twitter, TikTok, and their relations with well-being during the COVID-19 pandemic. *PLoS ONE*, *16*(3), e0248384. <u>https://doi.org/10.1371/journal.pone.0248384</u>
- Miles, J. M. (2009). Academic achievement and body image in undergraduate women. In *Online* Submission. <u>https://eric.ed.gov/?id=ED503960</u>
- Misra, M. (2008). Long-term skeletal effects of eating disorders with onset in adolescence. Annals of the New York Academy of Sciences, 1135(1), 212–218. https://doi.org/10.1196/annals.1429.002
- O'Brien, K. M., Whelan, D. R., Sandler, D. P., Hall, J. E., & Weinberg, C. R. (2017). Predictors and long-term health outcomes of eating disorders. *PLOS ONE*, *12*(7), e0181104. <u>https://doi.org/10.1371/journal.pone.0181104</u>
- O'Dea, J. A. (2012). Body image and self-esteem. In *Encyclopedia of body image and human appearance, Vol. 1* (pp. 141–147). Elsevier Academic Press. <u>https://doi.org/10.1016/B978-0-12-384925-0.00021-3</u>

- Overstreet, N. M., & Quinn, D. M. (2012). Contingencies of self-Worth and appearance concerns: Do domains of self-worth matter? *Psychology of Women Quarterly*, 36(3), 314–325. <u>https://doi.org/10.1177/0361684311435221</u>
- Pea, R., Nass, C., Meheula, L., Rance, M., Kumar, A., Bamford, H., & Yang, S. (2012). Media use, face-to-face communication, media multitasking, and social well-being among 8-to 12-year-old girls. *Developmental Psychology*, 48(2), 327. doi:10.1037/a0027030.
- Perez, S. (2020, June 4). *Kids now spend nearly as much time watching TikTok as YouTube in US, UK and Spain.* TechCrunch.

https://social.techcrunch.com/2020/06/04/kids-now-spend-nearly-as-much-time-watching -tiktok-as-youtube-in-u-s-u-k-and-spain/

Pew Research Center. (2022, January 11). *Social media fact sheet*. Pew Research Center: Internet, Science & Tech.

https://www.pewresearch.org/internet/fact-sheet/social-media/?menuItem=45b45364-d5e 4-4f53-bf01-b77106560d4c

- Prichard, I., McLachlan, A. C., Lavis, T., & Tiggemann, M. (2018). The impact of different forms of #fitspiration imagery on body image, mood, and self-objectification among young women. *Sex Roles*, 78(11), 789–798. <u>https://doi.org/10.1007/s11199-017-0830-3</u>
- Robinson, L., Prichard, I., Nikolaidis, A., Drummond, C., Drummond, M., & Tiggemann, M.
 (2017). Idealised media images: The effect of fitspiration imagery on body satisfaction and exercise behaviour. *Body Image*, 22, 65–71.

https://doi.org/10.1016/j.bodyim.2017.06.001

- Rodgers, R. F. (2016). The relationship between body image concerns, eating disorders and internet use, part II: An integrated theoretical model. *Adolescent Research Review*, 1(2), 121–137. <u>https://doi.org/10.1007/s40894-015-0017-5</u>
- Rogers, L. G. (2021). TikTok teens: Turbulent identities for turbulent times. *Film, Fashion & Consumption*, *10*(2), 377–400. <u>https://doi.org/10.1386/ffc_00031_1</u>
- Rome, E. S., & Ammerman, S. (2003). Medical complications of eating disorders: An update. *Journal of Adolescent Health*, *33*(6), 418–426.

https://doi.org/10.1016/j.jadohealth.2003.07.002

- Rosenberg, M. (1965). Society and the adolescent self-image. Princeton University Press.
- Rounsefell, K., Gibson, S., McLean, S., Blair, M., Molenaar, A., Brennan, L., Truby, H., & McCaffrey, T. A. (2020). Social media, body image and food choices in healthy young adults: A mixed methods systematic review. *Nutrition & Dietetics*, 77(1), 19–40. <u>https://doi.org/10.1111/1747-0080.12581</u>
- Santarossa, S., & Woodruff, S. J. (2017). #SocialMedia: Exploring the relationship of social networking sites on body image, self-esteem, and eating disorders. *Social Media* + *Society*, *3*(2), 2056305117704407. https://doi.org/10.1177/2056305117704407
- Schweitzer, A. L., Ross, J. T., Klein, C. J., Lei, K. Y., & Mackey, E. R. (2016). An electronic wellness program to improve diet and exercise in college students: A pilot study. *JMIR Research Protocols*, 5(1), e4855. <u>https://doi.org/10.2196/resprot.4855</u>
- Sharma, R. (2021, July 10). Who Is 'That Girl' & Why Is TikTok Obsessed With Her? Refinery29.

https://www.refinery29.com/en-gb/2021/07/10551994/tiktok-obsession-with-that-girl

- Singer, J. (2021, August 15). TikTok's That Girl is meant to promote wellness, but some say it does the opposite | CBC News. CBC. https://www.cbc.ca/news/entertainment/that-girl-tiktok-trend-wellness-1.6139284
- Smith, M. [@mosmfit]. (2022, January 6). *Slim waist tings* $\neq \#$ #gymtok #greenjuicerecipe #juicerecipe #juicing [video]. TikTok. <u>https://vm.tiktok.com/TTPdak73qm/</u>
- Staci, K. (2021, August 6). Instagram vs. TikTok—Which Influencer Platform is Best. TechBullion.

https://techbullion.com/instagram-vs-tiktok-which-influencer-platform-is-best/

Statista. (2022). Leading iPhone apps worldwide 2022, by downloads. Statista.

https://www.statista.com/statistics/695791/top-iphone-apps-worldwide-by-number-of-do wnloads/

- Stice, E. (1994). Review of the evidence for a sociocultural model of bulimia nervosa and an exploration of the mechanisms of action. *Clinical Psychology Review*, 14(7), 633–661. https://doi.org/10.1016/0272-7358(94)90002-7
- Stice, E. (2002). Risk and maintenance factors for eating pathology: A meta-analytic review. *Psychological Bulletin*, *128*(5), 825–848. https://doi.org/10.1037/0033-2909.128.5.825
- Swerzenski, J. D. (2021). Fact, fiction or Photoshop: Building awareness of visual manipulation through image editing software. *Journal of Visual Literacy*, 40(2), 104–124. https://doi.org/10.1080/1051144X.2021.1902041

The Sunday Times. (2020, May 12). *TikTok: everything you need to know*. Style | The Sunday Times.

https://www.thetimes.co.uk/article/tiktok-everything-you-need-to-know-692pnxdb2

- Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). Exacting beauty: Theory, assessment, and treatment of body image disturbance. *American Psychological Association*. <u>https://doi.org/10.1037/10312-000</u>
- Tiggemann, M. (2003). Media exposure, body dissatisfaction and disordered eating: Television and magazines are not the same! *European Eating Disorders Review*, 11(5), 418–430. https://doi.org/10.1002/erv.502
- Tiggemann, M., & Zaccardo, M. (2015). "Exercise to be fit, not skinny": The effect of fitspiration imagery on women's body image. *Body Image*, 15, 61–67. https://doi.org/10.1016/j.bodyim.2015.06.003
- TikTok vs Instagram Influencers: The main difference | *GRIN*. (n.d.). <u>https://grin.co/blog/tiktok-vs-instagram-influencers/#fl-main-content</u>
- Tylka, T. L., & Wood-Barcalow, N. L. (2015). The Body Appreciation Scale-2: Item refinement and psychometric evaluation. *Body Image*, 12, 53–67. <u>https://doi.org/10.1016/j.bodyim.2014.09.006</u>
- Vandenbosch, L., Fardouly, J., & Tiggemann, M. (2022). Social media and body image: Recent trends and future directions. *Current Opinion in Psychology*, 45, 101289. https://doi.org/10.1016/j.copsyc.2021.12.002
- Vella-Zarb, R. A., & Elgar, F. J. (2009). The 'Freshman 5': A meta-analysis of weight gain in the freshman year of college. *Journal of American College Health*, 58(2), 161–166. <u>https://doi.org/10.1080/07448480903221392</u>
- Vendemia, M. A., & DeAndrea, D. C. (2018). The effects of viewing thin, sexualized selfies on Instagram: Investigating the role of image source and awareness of photo editing practices. *Body Image*, 27, 118–127. <u>https://doi.org/10.1016/j.bodyim.2018.08.013</u>

- Voderholzer, U., Haas, V., Correll, C. U., & Körner, T. (2020). Medical management of eating disorders: An update. *Current Opinion in Psychiatry*, 33(6), 542–553. <u>https://doi.org/10.1097/YCO.000000000000653</u>
- Wang, F., & Veugelers, P. J. (2008). Self-esteem and cognitive development in the era of the childhood obesity epidemic. *Obesity Reviews*, 9(6), 615–623.

https://doi.org/10.1111/j.1467-789X.2008.00507.x

- Wick, M. R., & Keel, P. K. (2020). Posting edited photos of the self: Increasing eating disorder risk or harmless behavior? *International Journal of Eating Disorders*, 53(6), 864–872. <u>https://doi.org/10.1002/eat.23263</u>
- Wiederman, M. W. (2000). Women's body image self-consciousness during physical intimacy with a partner. *The Journal of Sex Research*, 37(1), 60–68. https://doi.org/10.1080/00224490009552021
- Zavattaro, S. M. (2021). Taking the social justice fight to the cloud: Social media and body positivity. *Public Integrity*, *23*(3), 281–295.

https://doi.org/10.1080/10999922.2020.1782104

| Variable | 1. | 5. | Э. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. |
|----------------|---------------|--------------|--------|----------|--------------|---------|--------------|---------|---------|---------|-------|-----|
| 1. BSQ | 1 | | | | | | | | | | | |
| 2. BAS | 0.549** | , | | | | | | | | | | |
| 3. RSES | 0.404^{**} | 0.687** | | | | | | | | | | |
| 4. EAT-26 | 0.711^{**} | 0.330^{**} | | ı | | | | | | | | |
| 5. Comedy | -0.112 | -0.133 | -0.152 | 0.012 | , | | | | | | | |
| 6. Diet | -0.310^{**} | -0.070 | 0.029 | -0.376** | -0.060 | , | | | | | | |
| 7. Education | -0.023 | 0.079 | -0.087 | -0.091 | 0.390 ** | 0.018 | , | | | | | |
| 8. Home | -0.028 | 0.014 | 0.101 | -0.025 | 0.123 | 0.081 | 0.281^{**} | ı | | | | |
| 9. Influencer | -0.0101 | 0.126 | 0.033 | -0.069 | -0.131 | 0.512* | 0.023 | -0.109 | , | | | |
| 10. Style | -0.088 | 0.189* | 0.049 | 0.003 | 0.281** | 0.177* | 0.241^{**} | 0.031 | 0.435** | ı | | |
| 11. Exercise | -0.188* | 0.089 | 0.059 | -0.217* | -0.014 | 0.549** | 0.034 | 0.044 | 0.388** | 0.266** | ı | |
| 12. Other | -0.159 | -0.084 | -0.069 | -0.117 | 0.383^{**} | 0.035 | 0.105 | -0.173* | 0.191 | 0.324** | 0.095 | ' |

Tables

Table 1
 Correlation Matrix for Participant Reported Measures and Type of Content Viewed

educational content on TikTok, Home = viewing home improvement content on TikTok, Influencer = viewing influencer content on *Note*. BSQ= Body Shape Questionnaire, BAS = Body Appreciation Scale, RSES = Rosenberg Self-Esteem Scale, EAT-26 = Eating TikTok, Style = viewing style content on TikTok, Exercise = viewing exercise content on TikTok, Other = viewing other types of Attitudes Test-26, Comedy = viewing comedy content on TikTok, Diet = viewing diet advice on TikTok, Education = viewing content on TikTok. *p<.05. **p<0.01