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Social Media, Diet and Fitness Content, and Orthorexia Nervosa: A Pilot Investigation of Viewership and Orthorexic Behaviors

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Relationships between disordered eating and social media use are well-documented by past research. Orthorexia nervosa (ON) encompasses disordered eating behaviors motivated by food purity or health quality rather than weight or shape. As ON increases in public attention, researchers have begun investigating specific relationships between social media and ON. The purpose of this study was to examine social media viewership of diet and fitness content (DFC) and ON symptomatology. A convenience sample of 305 participants (78.3% women, mean age = 20) completed an online survey. Participants reported their social media engagement, and completed ON symptomatology and body image questionnaires followed by a pilot questionnaire on DFC viewership. An independent-samples *t*-test revealed a small group difference, such that participants who frequent TikTok more than other social media platforms engage in more DFC viewership than those who frequent other platforms most. Additionally, a hierarchical regression analysis demonstrated that, after controlling for body image, greater DFC viewership related to higher ON symptomatology and was most predictive of ON behaviors. In line with past research, our findings suggest a relationship between ON symptomatology and social media use. Novel findings of this study further specify a relationship between DFC viewership and ON symptomatology.

Keywords: orthorexia nervosa, body image, social media, online diet content, online fitness content, TikTok

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Social media websites have dominated traditional media formats for the last decade, becoming the most frequented sites on the internet today (Cohen et al., 2018; Prieler & Choi, 2014; Veldhuis et al., 2020). Arguably one of the most appealing aspects of social media is the ability of any user to take on the role of creator, viewer, or both. Social media provides an intimate form of media consumption where creators, regardless of social or economic standing, can release content to vast audiences, who in turn, provide real-time feedback in the form of likes, comments, and

other functions (Butkowski et al., 2019; Cohen et al., 2018; McLean et al., 2015; Yilmazel, 2021). Additionally, social media users can personalize their online experience through hashtags (key search words that link content to a theme or idea) that link users to interest-specific content and communities (Oksanen et al., 2015). Hashtags also make it easy for creators to promote their content to target groups with similar identities (Deighton Smith & Bell, 2018; Sherlock & Wagstaff, 2019). Young adults between 18 and 29 years of age have been the predominant demographic of social media users, but dependence on social media during the COVID-19 pandemic has led to quickly increasing numbers of adolescent users (Cohen et al., 2017, 2018; Logrieco et al., 2021; Slater et al., 2017). Although social media provides a digital space for otherwise inaccessible social support, the saturation of social media in daily life presents challenges.

LITERATURE REVIEW

One consequence of social media is that pro-anorexia (e.g., the rejection of eating disorders as pathologies and promotion of disordered eating as a lifestyle) and thinspiration (e.g., the glamorization of thinness) groups utilize social media to promote the thin ideal (Hilton, 2018; Ging & Garvey, 2018; Slater et al., 2017). Furthermore, visual-based social media platforms (i.e., platforms sharing primarily photo and video) provide easy-to-use filters that allow the creator to alter virtually any aspect of their appearance before posting (Brown & Tiggemann, 2016; Mabe et al., 2014; Veldhuis et al., 2020; Zhu et al., 2020). It is not surprising that a substantial body of correlational research suggests a connection between disordered eating behaviors and extensive time spent consuming visual forms of social media (Brown & Tiggemann, 2016; Butkowski et al., 2019; Cohen et al., 2017). This relationship is of particular concern given that the most rapidly growing social media platforms, such as Instagram and TikTok, are visual-based media platforms (Herrick et al., 2020; Sherlock & Wagstaff, 2019; Tamplin et al., 2018).

Social media has also become a primary source of health-related information for many young adults, such that users find advice from social media influencers reliable and desirable (Gobin et al., 2021; Turner & Lefevre, 2017; Yilmazel, 2021). One example of this is fitspiration, a social media movement originating in opposition to pro-anorexia and thinspiration, which aimed to promote a healthy lifestyle through eating well and

engaging in exercise (Holland & Tiggemann, 2017; Slater et al., 2017). Though the goal of fitspiration was to inspire a healthy lifestyle, much of this content promotes extreme attitudes toward exercise and implies that health and body-image ideals are equitable (Deighton Smith & Bell, 2018; Holland & Tiggemann, 2017; Pilgrim & Bohnet-Joschko, 2019).

Orthorexia nervosa (ON) is a disordered eating condition, not currently classified as a mental disorder, in which individuals exhibit obsessive and often pervasive thoughts about healthy eating that can lead to extreme dieting behaviors (Atchison & Zickgraf, 2022; Bratman, 1997). Similar to the goals of fitspiration, the primary motivation in ON is to achieve perfect dietary health (Cheshire et al., 2020; Gobin et al., 2021). However, the presentation of ON depicts healthy eating obsessions accompanied by behavioral rituals contributing to dietary rigidity, medical complications, and a range of psychosocial impairments (Cheshire et al., 2020; Dunn & Bratman, 2016; Kaya et al., 2022; Valente et al., 2021). In severe instances of ON, the individual's fixation with food quality can result in food restrictions and consequential weight loss or malnutrition that appears similar to anorexia nervosa (Gobin et al., 2021; McComb & Mills, 2019). Additionally, ON and anorexia share traits of perfectionism, ritualistic behaviors, and emotional distress in response to straying from a set diet plan (Turner & Lefevre, 2017; Valente et al., 2021). However, ON differs from anorexia in that most researchers find no relation between ON and gender or body mass index (BMI; McComb & Mills, 2019). Though debate continues as to whether ON is a distinct disorder, researchers propose the following criteria for ON: (a) preoccupations with obtaining a pure and healthy diet that coincides with rigid avoidance of foods deemed unhealthy; (b) extreme emotional distress as a result of dietary violations that manifest alongside feelings of guilt, shame, or anxiety; (c) physical impairments or nutritional deficiencies that could lead to weight loss or other medical complications; and (d) social, psychological, occupational, or academic impairments resulting from the previous criteria (Cena et al., 2019; Kaya et al., 2022).

Though research on the relationships between ON and social media remains in its infancy, increasing presentations of ON symptomatology have been correlated to Instagram use (Valente et al., 2021; Yilmazel, 2021). A recent study by Gobin et al. (2021) investigated social media and ON in the context of the pandemic. This group found that

during pandemic lockdowns, women with high ON symptomatology reported feeling more pressure from social media to lose weight. As social media integrates further into daily life, it becomes increasingly important to understand how social media content relates to ON symptomatology.

Purpose of the Current Study

To the best of our knowledge, this is the first study to specifically explore viewership (i.e., content consumption rather than creation) of diet and fitness content (DFC) on social media in relation to ON symptomatology. Given past trends in disordered eating content on social media, we may expect that individuals who seek out DFC will spend more time on visual-based social media platforms. Additionally, with the increase in users seeking fitness and health advice on social media, individuals with more severe ON symptomatology may generally engage more with DFC on social media. We first aimed to assess whether individuals who most frequently use the social media platform TikTok engage with more DFC than those who most frequently use other platforms. Our decision to specify TikTok DFC viewership was two-fold: (a) TikTok was recorded as the fastest-growing social media platform at the time of data collection and (b) TikTok facilitates almost exclusively visual content over text and audio content (Herrick et al., 2020; Paul, 2021). Relative to this aim, we first hypothesized that individuals who use TikTok most frequently would demonstrate higher levels of engagement with DFC than individuals who most frequently use alternative social media sites. Secondly, we sought to assess whether DFC viewership on social media is related to ON, and whether this relationship would remain after controlling for body image. Relative to our second aim, we hypothesized that greater frequency of DFC viewership would relate to greater ON symptomatology. Furthermore, we hypothesized that this relationship would remain after controlling for body image concerns.

METHODS

Participants

Using the software G*Power, a minimum sample of 210 participants (with at least 105 per group) was determined necessary for using an independent-samples *t*-test to detect a medium effect group difference between those who use TikTok most frequently

versus those who use other social media platforms most. For a regression analysis, a minimum sample of 89 participants was determined necessary to detect a relationship of medium effect size. Power analyses were conducted with a standard alpha criterion of .05 and allowance for detecting a medium-magnitude relationship between DFC viewership and ON after controlling for body image. A convenience sample of participants was recruited from Introduction to Psychology courses and Introduction to Statistics courses in the Department of Psychology at Texas State University. The purpose of recruiting a sample from a large university was to increase the likelihood of obtaining participants who most probabilistically would utilize social media regularly. Eligibility criteria for this study were that participants must be at least 18 years of age and use social media.

Procedure

This study was approved by the Texas State University Institutional Review Board. Upon providing informed consent, participants completed an online survey through the Qualtrics platform. The survey included four sections with questionnaires on demographic information, social media engagement, ON symptomatology, and body image. Participants recruited were compensated with either credit toward completion of their research participation requirement or with extra course credit.

Materials

The demographic section of the survey asked participants to report their gender identity, age, race/ethnicity, height and weight for BMI calculation, and highest level of education completed. Additionally, participants were asked to report how they currently classify their dietary habits from the following: non-vegetarian (will eat red meat, poultry, or fish on a regular basis), semi-vegetarian (mostly vegetarian but will eat red meat, poultry, or fish on occasion), vegetarian (no red meat, poultry, or fish; will eat eggs and/or dairy), or vegan (no red meat, poultry, fish, or any animal byproducts including eggs and dairy).

The social media engagement section was comprised of specific items developed for this study. These items asked participants whether or not they use each of the following social media platforms: TikTok, Instagram, Facebook, Twitter, Reddit, and Tumblr. Participants were then asked which platform they use most frequently (e.g., TikTok, Instagram, Twitter, Reddit, Facebook, Tumblr, none of the above). The remainder of this

section consisted of a pilot Diet and Fitness Content Questionnaire (DFCQ) with the following three questions pertaining to their social media use: "Do you enjoy diet or fitness content?", "Do you seek out diet or fitness content?", and "Do you follow diet or fitness accounts?" Participants responded to these questions using a six-point Likert scale from "never" to "always". The aim of the DFCQ was to provide a score representing the participant's engagement with social media DFC as a viewer rather than a creator. Using the data from this study, a maximum-likelihood factor analysis showed that communalities for the three DFCQ items exceeded a .5 threshold. The single-factor loadings for the DFCQ items ranged from .82-.89, and internal reliability was strong (Cronbach's $\alpha = .89$).

ON symptomatology was then assessed using the Orthorexia Nervosa Inventory (ONI; Oberle et al., 2020). The ONI consists of 24 statements that participants rate on a four-point scale from "not at all true" to "very true" according to their current eating behaviors. Total ONI scores range from 24-96 with higher scores indicating greater ON symptomatology. Included within the ONI are three subscales: Behaviors (e.g., "Preparing food in the most healthful way is very important in my diet"), Impairments (e.g., "My healthy eating is a significant source of stress in my relationships"), and Emotions (e.g., "I feel much guilt or self-loathing when I stray from my healthy diet"). Consistent with the original validation study by Oberle et al. (2020), the current study demonstrated strong internal reliability for the total ONI (Cronbach's $\alpha = .92$), and good reliability for ONI Behaviors (Cronbach's $\alpha = .83$), ONI Impairments (Cronbach's $\alpha = .86$), and ONI Emotions (Cronbach's $\alpha = .87$). Pertaining to the validity of the ONI, our study further replicated past findings such that scores were higher for participants with an eating disorder compared to those without an eating disorder and for vegetarian and vegan participants compared to those who follow non-vegetarian diets (Kaya et al., 2022; Oberle et al., 2020).

To assess participant self-evaluations of body image, the survey also included the Body Dissatisfaction subscale of the Eating Disorder Inventory 2 (EDI-2 BD; Garner, 1991), and the Fear of Negative Appearance Evaluation Scale (FNAES; Thomas et al., 1998). The EDI-2 BD is a nine-item subscale of the EDI-2 which assesses the level of dissatisfaction a participant has toward dimensions of their overall body and specific body regions. Items on the EDI-2 BD, such as "I think that my stomach is too big", are rated by

participants on a six-point Likert scale from "always" to "never". Scores on the EDI-2 BD range from 9-54 with lower scores indicating greater body dissatisfaction. Although slightly lower than a study by Thiel and Paul (2006), internal reliability for the EDI-2 BD in the current study was good (Cronbach's α = .83). Relative to validity, our sample replicated that of Spillane et al. (2004) with women in our sample endorsing greater body dissatisfaction on the EDI-2 BD than men.

The FNAES is an eight-item, self-report measure that assesses an individual's degree of worry toward having their physical appearance viewed. Modified from the Brief Fear of Negative Evaluation Scale (Leary, 1983), the FNAES asks participants to rate their agreement with statements (e.g., "I worry that people will find fault with the way I look") on a five-point Likert scale from "never true" to "almost always true". Scores on the FNAES range from 8-40, with higher scores indicating more worry toward a negative evaluation of appearance. Consistent with a validation study by Lundgren et al. (2004), internal reliability of the FNAES was strong in the current study (Cronbach's α = .92) and the FNAES score was not correlated with BMI.

Statistical Analyses

Data were analyzed using SPSS version 27 (IBM, Chicago, IL). Pairwise deletion was used for instances of missing data. Preliminary analyses were conducted between ONI scores and gender, education, age, and BMI to identify possible confounding demographic variables. Pearson correlation analyses were also performed to check for the relatedness of scores on the EDI-2 BD, FNAES, DFCQ, and each of the ONI scales (total ONI, ONI Behaviors, ONI Impairments, and ONI Emotions). Magnitude of significant correlations were evaluated such that r values of .1 were considered weak, values of .3 were considered moderate, and values of .5 were considered strong (Cohen, 1988). Relative to our first hypothesis, an independent-samples t-test was conducted to examine differences on the DFCQ between participants who use TikTok more frequently than other platforms versus participants who use other social media platforms more than TikTok. For significant group differences, Cohen's d was calculated with value thresholds of .2 for a small effect, .5 for a medium effect, and .8 for a large effect. To test our second hypothesis, hierarchical regression analyses were performed on data from the participant group who frequent TikTok more often than other social media platforms. For each hierarchical regression

analysis, scores on the EDI-2 BD and FNAES were entered as predictor variables in step one. The DFCQ score was entered as the predictor variable in the second step, and scores for each ONI scale were separately entered as dependent variables. A standard alpha criterion of .05 was used to determine significance for all analyses.

RESULTS

Our sample included 305 participants whose ages ranged from 18 to 57 years (M = 20.48, SD = 3.96) and BMI ranged from 15.02 to 48.42 kg/m^2 (M = 24.93, SD = 5.56). Within our sample, the majority of participants reported spending more than 2 hours on social media daily (60.6%; 26.8% 1 to 2 hours; 10.9% 30 minutes to 1 hour; 1.7% less than 30 minutes) and posting content to social media (50.8%). The participants reported using a variety of social media platforms: Instagram (n = 283, 93.4%), TikTok (n = 263, 86.8%), Twitter (n = 183, 60.4%), Facebook (n = 148, 48.8%), Reddit (n = 50, 16.2%), and Tumblr (n = 14, 4.6%). Regarding engagement, however, the platform that majority of participants reported using most frequently was TikTok (60.1%), followed by Instagram (21.5%), Twitter (8.9%), Facebook (3.6%), Reddit (1.7%), and Tumblr (1.0%). The TikTok group (n = 182) consisted of the participants who reported using TikTok more than other social media platforms. Demographic characteristics of the overall sample and the TikTok group are detailed in Table 1.

Participant scores on each of the ONI scales were not correlated with BMI and an independent t-test revealed no ON differences between male and female identifying participants. In contrast, ONI scores were correlated with scores on the DFCQ, EDI-2 BD, and FNAES (see Table 2). Regarding DFC viewership, higher scores on the DFCQ (i.e., more frequent DFC viewership) were associated with higher scores on each of the ONI scales (i.e., greater ON symptomatology). The correlation between the DFCQ and the ONI Behaviors scale was of moderate magnitude, yet the remaining DFCQ and ONI associations were weak in magnitude. Regarding body image, lower EDI-2 BD scores (i.e., greater body dissatisfaction) and higher FNAES scores (i.e., greater fear of negative appearance evaluation) were associated with higher scores on each of the ONI scales (i.e., greater ON symptomatology), although the correlation between the EDI-2 BD score and

ONI Behaviors score was not statistically significant, and the correlation between FNAES scores and ONI Behaviors scores was only weak in magnitude.

Table 1

Sample Demographics

	All participants		TikTok group	
	n	%	*n*	%
Gender				
Women	238	78.3	157	86.3
Men	52	17.1	20	11.0
Non-binary/third gender	14	4.6	5	2.7
Race/ethnicity				
White	125	41.1	73	40.1
Hispanic/Latinx	114	37.5	70	38.5
Black	28	9.2	19	10.4
Asian American/Pacific Islander	10	3.3	5	2.8
Native American	1	0.3	1	0.5
Biracial/multiracial	25	8.2	14	7.7
Other	1	0.3	0	0.0
Education				
High school, no degree	1	0.3	0	0.0
High school diploma/GED	73	24.0	47	25.8
College, no degree	187	61.5	112	61.5
Associate's degree	33	10.9	15	8.2
Bachelor's degree	10	3.3	8	4.4
Diet				
Non-vegetarian	256	84.8	154	84.6
Semi-vegetarian	37	12.2	24	13.2
Vegetarian	7	2.3	2	1.1
Vegan	2	0.7	2	1.1
ED diagnosis				
None	288	95.7	174	95.6
Anorexia nervosa	2	0.6	2	1.1
Bulimia nervosa	0	0.0	0	0.0
Orthorexia nervosa	1	0.3	1	0.5
Binge eating disorder	5	1.7	2	1.1
Avoidant/restrictive food intake disorder	5	1.7	3	1.7

Note. TikTok group = participants who use TikTok more than other social media platforms.

To test the first hypothesis, an independent-samples *t*-test revealed a small-magnitude difference in DFCQ scores based on social media platform frequency of use (TikTok vs. all other platforms), $t(299) = 2.35$, $p = .019$, Cohen's $d = .28$. Scores on the

Table 2

Means, Standard Deviations, and Correlation Analyses

	M	*SD*	1	2	3	4	5	6
1. DFCQ	9.59	4.08						
2. EDI-2 BD	29.27	7.17	.03					
3. FNAES	26.93	7.94	-.03	-.53**				
4. Total ONI	36.18	10.88	.27**	-.35**	.37**			
5. ONI Behaviors	14.14	4.46	.36**	-.09	.13*	.84**		
6. ONI Impairments	13.23	4.60	.16**	-.34**	.38**	.88**	.57**	
7. ONI Emotions	8.81	3.65	.16**	-.49**	.46**	.85**	.56**	.67**

Note. DFCQ = Diet and Fitness Content Questionnaire; EDI-2 BD = Eating Disorder Inventory 2 Body Dissatisfaction subscale (Garner, 1991); FNAES = Fear of Negative Appearance Evaluation Scale (Thomas et al., 1998); ONI = Orthorexia Nervosa Inventory (Oberle et al., 2020).

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

DFCQ were higher for participants who use TikTok more than other platforms ($M = 10.04$, $SD = 4.08$) compared to participants who use other platforms more than TikTok ($M = 8.92$, $SD = 3.99$).

Combined findings from the four hierarchical regression analyses are detailed in Table 3. Results indicated that the body image variables in Model 1 (EDI-2 BD score and FNAES score) significantly predicted the variance in scores for each of the ONI scales (i.e., Total ONI, ONI Behaviors, ONI Impairments, and ONI Emotions). Pertinent to our second hypothesis, results indicated that Model 2 significantly increased the variance in scores on each of the ONI scales accounted for. Higher scores on the DFCQ were associated with higher scores on the total ONI ($B = .72$, $SE = .18$, $p < .001$, $sr = .29$), higher ONI Behaviors scores ($B = .38$, $SE = .08$, $p < .001$, $sr = .35$), higher ONI Impairments scores ($B = .18$, $SE = .08$, $p = .028$, $sr = .17$), and higher ONI Emotions scores ($B = .16$, $SE = .06$, $p = .009$, $sr = .19$). DFCQ scores were most predictive of scores on the ONI Behaviors subscale.

DISCUSSION

The aims of the present study were twofold. First, we assessed whether individuals who use TikTok more than other social media platforms would engage with more diet and

fitness content (DFC) on social media than individuals who primarily use other social media platforms. Second, we assessed whether DFC viewership on social media is related to orthorexia nervosa (ON), and whether this relationship remains when controlling for

Table 3

Hierarchical Regression Analyses

ONI scale	Step 1: body image[a]		Step 2: body image with DFCQ[b]		
	F	R^2	F change	ΔR^2	DFCQ β
Total	18.14***	.17	15.77***	.07	.26***
Behaviors	3.52*	.04	24.52***	.12	.34***
Impairments	16.27***	.16	5.43*	.02	.16*
Emotions	32.39***	.27	6.95**	.03	.17**

Note. ONI = Orthorexia Nervosa Inventory (Oberle et al., 2020); DFCQ = Diet and Fitness Content Questionnaire; EDI-2 BD = Eating Disorder Inventory 2 Body Dissatisfaction subscale (Garner, 1991); FNAES = Fear of Negative Appearance Evaluation Scale (Leary, 1983).

*$p < .05$. **$p < .01$. ***$p < .001$.

[a]Predictors for body image variables in Step 1 include score on the EDI-2 BD and score on the FNAES.

[b]Predictors for Step 2 include the body image variables previously listed with the addition of DFCQ score.

body image. For this study, we developed a pilot measure (Diet and Fitness Content Questionnaire; DFCQ) to assess the extent to which individuals view DFC on social media. The main findings from this study showed that individuals who frequent TikTok more than other social media platforms were more likely to view DFC, and that higher levels of DFC viewership on social media were significantly associated with ON behaviors, impairments, and emotions, even while controlling for body image.

Problematic behavior on social media has been associated with various psychopathologies, including depression and anxiety (Bonnette et al., 2019; Dailey et al., 2020; Robinson et al., 2019) along with body image issues and eating disorders (Agliata & Tantleff-Dunn, 2005; Derenne & Beresin, 2018; Gorski et al., 2022; Marks et al., 2020). According to a review by Marks et al. (2020), the DFC presented on these sites not only promotes diet, exercise, and images of ideal body types, it also receives heightened amounts of engagement. Research on the various social media sites has identified positive associations between disordered eating behaviors with intensity of exposure and use (i.e.,

time spent on the platform and number of connections; Turner & Lefevre, 2017; Walker et al., 2016).

The relationship between DFC viewership behaviors on different social media sites is still evolving. The present study assessed whether frequent TikTok users were more likely to view DFC than those who primarily use other social media platforms, and found that indeed, the college-aged sample in this study who frequent TikTok exhibited significantly higher DFC viewership behaviors. In a study on Twitter use, Sukunesan et al. (2021) evaluated pro-eating disorder content on Twitter with the hashtags #proana and #thinspo and found that 90% of the users with this profile rarely tweeted, which may be indicative of using Twitter for DFC viewership, although they may be more active on other social media platforms for this purpose. Comparing Twitter and Instagram, Turner and Lefevre (2017) found strong associations between Instagram use and ON, yet the relationship between Twitter use and ON was small. Again, the assumption (as tested in the current study) is that people with greater ON symptomatology will exhibit greater DFC viewership in their pursuit of what they believe constitutes perfect health. The greater association of ON symptomatology to Instagram use in comparison to Twitter use is likely due to Instagram's visual platform. Regarding differences between Instagram and TikTok, whereas Instagram's platform consists primarily of photos that can be viewed only by followers, TikTok's users post videos (up to 3 minutes long) that are shared liberally to all of the TikTok community on their "For You" page through the platform's viewing algorithm. Because TikTok allows individuals to share videos of personal stories and before-and-after pictures, along with recipes and cooking demonstrations, there is a lot of DFC available. Like other social media platforms, TikTok uses hashtags so that specific topics can be searched. While TikTok does not allow pro-anorexia hashtags, many users have identified ways to work around the censorship, including altered spellings of words (Paul, 2021), which provides an opportunity for posting and searching problematic DFC. According to the article posted on The Guardian (Paul, 2021), TikTok's user demographics are younger (60% of users are between 16 and 24 years old), and there is a plethora of DFC available, with popular hashtags including #WhatIEatInADay, #ketodiet, and #Iwillbeskinny.

The present study also assessed whether greater DFC viewership behaviors on social media are related to ON. Using the piloted DFCQ on individuals who primarily use TikTok, we identified that higher scores on the DFCQ (indicating more DFC viewership behaviors) were associated with increased ON symptomology. This relationship was significant for all three of the ONI subscales: Behaviors, Impairments, and Emotions, even when controlling for body image, with higher DFC viewership having the largest impact ONI Behaviors. As mentioned previously, researchers tend to agree on four primary diagnostic criteria for ON: (a) preoccupation with obtaining a pure and healthy diet, (b) extreme emotional distress resulting from dietary violations, (c) physical impairments or nutritional deficiencies resulting from an overly restrictive diet, and (d) psychosocial impairments resulting from the previous criteria (Cena et al., 2019; Kaya et al., 2022). The ONI Behaviors subscale assesses aspects of that first criterion, preoccupation with a healthy diet, and accordingly, a moderate-sized correlation between this subscale's scores and DFC viewership is not surprising. A recent study by Noebel et al. (2022) found that ON is associated with deficits in executive function, including behavioral regulation, whereby they have difficulties inhibiting certain behaviors, shifting their attention to other information or tasks needing completion, and generally self-monitoring their behaviors. These tendencies may contribute to high-ON individuals' obsessive preoccupation with a healthy diet and a corresponding potentially excessive degree of DFC viewership on social media sites.

Strengths and Limitations

There are many strengths of the present study. The sample size was relatively large and included 37.5% Latinx participants, allowing for greater generalization for ethnicity. Further, ON was assessed using a widely validated instrument. Additionally, the current study accounted for possible confounding variables when measuring the association between ON and DFC viewership behaviors. These variables included gender and BMI (that were found to be unrelated to ON symptomatology), as well as two measures related to body dissatisfaction that were included as covariates in the regression analyses. There are some limitations to consider, though. First, the participants were recruited from Texas State University, which may limit geographic generalizability. Likewise, the majority of the sample was female (78.3%), which limits generalizability to other genders. Next, this

was an online study with self-reported measures that can increase bias related to social desirability; however, the anonymous nature of the survey should have minimized this bias. Relative to our materials, the DFCQ did not provide explicit examples of DFC to participants, which may have limited participant understanding of the construct. Finally, because ON is not a recognized psychiatric disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association; 2013), there is not a clinical diagnosis that can be determined, and thereby only general level of symptomology can be assessed.

Conclusion

Findings from the present study support the relationship between TikTok use and DFC viewership behaviors, which is related to increased ON symptomology. Problematic social media use has been associated with many different areas of mental health, including disordered eating behaviors. While the creators of TikTok have attempted to reduce access to posts involving pro-eating disorder content, many users have found ways to circumvent these efforts. The relationship between DFC viewership and ON symptomatology highlighted by the present study thereby adds to ongoing efforts to understand the role of social media in disordered eating. Given that the onset of eating disorders is greatest in adolescence (American Psychiatric Association, 2013) and that social media use is becoming increasingly common among younger demographics (Cohen et al., 2017), future efforts should be made to research social media DFC exposure in adolescents.

Additionally, social media has played an increasing role in how society evaluates validity of information from public health recommendations to world news (Derenne & Beresin, 2018). Exacerbated by the COVID-19 pandemic, global search trends indicate that individuals are seeking food information online, including nutritional supplementation (Gobin et al., 2021). While some health professionals, such as registered dietician Summer Taylor (@sincerelyxsummer on TikTok), have taken to social media to reduce misinformation, exposure to diet culture fads remains easily accessible and difficult for users to differentiate. Future directions in social media research may be needed to examine how social media platforms could moderate content more effectively to address harmful DFC. Additionally, continued research is needed not only to educate individuals

about the risks and consequences of ON, but also to reduce the access to pro-eating disorder DFC on TikTok.

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