The Effect of Religiosity, Social Media, and Parental Modeling on Disordered

Abstract

Nine percent of Americans are diagnosed with an eating disorder, and 41.9% suffer from obesity,

and body image. Orthorexia was first introduced by Bratman (1997) and is severe restrictions in diet but for health reasons. The restrictions focus on the quality of food rather than the quantity, though this often results in entire categories of food being eliminated, leading to malnutrition and rigid behaviors that impair everyday functioning. While there is no official diagnostic criteria, there is evidence that orthorexia is separate from other eating disorders (Dunn & Bratman, 2016). There are no reliable prevalence rates of orthorexia, Niedzielski and Kazmiercczak-Wojtas (2021) found heavy social media use for health, fitness and beauty information can increase the risk of it, especially in young people. Social media often models unrealistic beauty standards which people try to conform to, since it is easy to photoshop pictures or add filters which makes people look unrealistic, sometimes to the point of seeking cosmetic surgery or fasting diets (Seekis & Barker, 2022; Rounsefell et al., 2019). This could be a risk factor for poor body image as well. Parental modeling shows children the eating habits that they should replicate in their lives, and if parents display unhealthy eating habits, such as overeating or excessive dieting, may be a risk factor for developing orthorexia and poor body image (Handford et al., 2018). Certain religions may give those who participate in both a community and culture to increase well-being (Handelzalts et al., 2017; Kertechian & Swami, 2016), as well as creating rules and expectations surrounding food and diet, creating a protective factor against orthorexia and poor body image (Handelzalts et al., 2017).

However, studies on parental modeling often focus on mother-daughter relationships, neglecting the father's modeling behaviors. Studies on religion's influence on disordered eating cognitions often focus on Islam, Christianity, and Judaism, which leaves out non-organized religions, such as personal practicing, as well as other major religions such as Hinduism, Buddhism, and Paganism. While there is a growing body of social media research examining

social media content and its relation to eating behavior, body image, and eating disorders, the

current research is not done in conjunction with parenting behavior and religion. For example,

some users may spend time on social media interacting with pro-eating disorder content, while

other users may spend time with communities that may be harder to connect to in-person, such as

the LGBT community, in order to feel connected with their community (McInroy et al., 2019).

This study addresses these gaps to expand the current literature on orthorexia and body image

and expect these results to be informative for treatment plans.

      The social cognitive theory (SCT; Bandura, 1991) provides the farmwork for how social

media, parental modeling and religion influences eating behaviors and body image. It is a

learning theory which states that people can learn vicariously through the observation of

another's behavior, and not only from direct experience. According to SCT, people change their

behavior based on environmental influences, though the3.9 (nd body)4 (3   [(m)-2 (hw -37.4 -2.3 .o4 (oldi)-2uTd

unknowingly be teaching their children to engage in restrictive eating behaviors or have poor body image. Parental modeling is particularly effective, because parents and children spend so much time together, especially during mealtime, so the behaviors are observed repeatedly.

The following sections will review the relevant literature as it pertains to the effects of religion, social media and parental modeling of eating behaviors on body image and disordered eating.

Religion

Previous research has shown that certain religions are a protective factor against negative body image as well as eating disorders. Religion, in this case, is defined as identification with a religion with more organized and behavioral connotations which may include attending religious services, praying individually, following religious diets and doctrines, and interacting with a religious community (Jackson & Bergeman, 2011). Religious norms are observed, attended to, and replicated in one's life. For example, religions that place an importance on eating, and saying a prayer of thanks before eating may inform religious people that food is important, and they should be thankful for the food they have. However, if a religion emphasizes guilt, people may translate that into guilt about tasks like eating, especially more unhealthy foods. Religious diets,

found that Muslim women who wear the hijab reported a significantly lower body dissatisfaction

rating and drive for thinness, and rated higher social support from community members when

facing discrimination, showing that religion can be a protective factor against both body image

and disordered eating (Kertechian & Swami, 2016).

This phenomenon is not specific to just Islam but may extend to Judaism as well.

Handelzalts et al. (2017) examined woman's satisfaction with their body image among three

denominations of Judaism in Israel: Ultra-Orthodox (following strict religious rules, wearing

identifiably Jewish attire such as tichels, or head coverings, and wigs, and dressing modestly,

staying mostly in the Jewish community), Modern-Orthodox (following most religious rules, but

Unlike Judaism and Islam, Christianity, especially more conservative sects, can be a risk factor for negative outcomes, such as poor body image and disordered eating. Gates and Pritchard (2009) investigated the relationship between religion and "religious angst" and disordered eating. They studied undergraduates, mostly women, and used measures of eating behaviors, body dissatisfaction, religious affiliation, and religious angst (defined as anxiety or dread towards one's religion/religious affiliation). They found that Catholic and non-Catholic Christians displayed more disordered eating than other groups, in part due to their higher scores on religious angst. These results show that though in many situations, religion can be a protective factor against disordered eating, and negative feelings towards religion, as well as more conservative religions such as Christianity may predict negative outcomes.

There is, however, a gap in the literature regarding those practicing non-Abrahamic religion, such as Buddhism, Hinduism, and Paganism. In this study, will add to the existing body of research by intentionally recruiting those from organized religions such as Buddhism and Hinduism, as well as more personal spiritual practices, such as Paganism and spirituality by using a scale of religiosity instead of only asking for religious affiliation. This study also tries to bridge this gap by using qualitative questions which allow participants to better explain their relationship with religion and spirituality, so that participants can discuss their own personal thoughts and feelings about their religiosity and practice. This allows for a better understanding of how other organized and more personal-practiced based religions understand and relate to food.

Social Media

Social media (SM) is defined as websites and online communities where people can communicate with others (such as Twitter, Facebook, Snapchat, Instagram and MySpace).

According to the Pews Research Center (2021), 72% of American adults use at least one social media site. Social media can be a great way to connect with friends, find community, and engage with creative content, like literature, art, and music. However, a substantial amount of social media is dedicated to health, beauty and fitness. Social media sites such as Instagram constantly and repeatedly show people with unrealistic body types, due to either surgery, photoshop, lighting, or filters. Users also only post their "best" pictures, referring to pictures in which they look the best as well as pictures in which they seem happy and content (Saiphoo & Vahedi, 2018). Viewing posts with more idealized bodies, such as skinny women and muscled men, can lead to increased body dissatisfaction (Saiphoo & Vahedi, 2018; Rodgers & Melioli, 2016). The repeated exposure and observation to these carefully curated and edited pictures also subtly teaches users what they should look like. These posts of idealized bodies are also rewarded with more likes, shares, and comments, reinforcing the need to have the same type of body. Bodies that are non-compliant to the beauty standard (not edited, not the image of an "ideal" body) get less likes and more negative comments, such as hate comments and harassing direct messages. Social media may also teach people how they should eat and think about food. Some influencers, especially male exercise and health influencers are constantly pushing overexercising and diets, such as mainly protein diets, to build muscle and "bulk up". Influencers may also advertise various weight-loss methods, whether it be a magical pill or eating a balanced diet. Social media also harbors disturbing content, such as pro-anorexia ("pro-ana") and "thinspiration" posts and forums both of which encourage users to engage in unhealthy behaviors such as body comparison, excessive fitness, extreme food restriction and dieting, and other weight loss behaviors (Branley & Covey, 2017; Lewallen & Behm-Morawitz, 2016).

Lewallen and Behm-Morawitz (2016) examined how interaction with fitness posts on the SM site Pinterest affect women's eating behaviors and social comparisons. They measured participants' ideal female body type, motivations for exercise, social comparison, BMI, eating behaviors, and interaction with fitness content. Results revealed that those who interacted with more fitness content displayed more disordered eating behaviors and engaged in more social comparison than those who interacted with other content. These results provide evidence of the negative effect certain social media sites can have on body image and how certain content on social media sites may serve as a risk factor for disordered eating behaviors. This conclusion is supported by Rodgers et al. (2016)'s meta-analysis, which found that content surrounding weight, body image, and eating can negatively influence users, and any exposure to eating disorder-related content can lead to negative outcomes, such as lowered body image and self-esteem.   -

eating models to a child that eating is not about enjoying food and stopping when sated, but about body size. Food, then, also becomes value laden, revolving around positive or negative judgements for eating or not eating too much. Parent's modeling of their relationships with food is the foundation for the child to create their own relationship with food and their body. For example, if parents' model healthy eating by consuming fruits and vegetables, the child is more likely to develop a taste for those foods (Kral & Rauh 2010). Parents may also help to develop healthy relationships with food by emphasizing that food is energy for the body, teaching children that no food is inherently "bad", and avoiding commenting on weight and peoples' bodies. Parents may send negative messages about eating and food by praising children for being thin or losing weight, assigning food the label of "good" or "bad," and restricting certain foods from the household.

Parental modeling does not take long to influence children's eating behavior. In Handford et al. (2018), girls and their mothers were asked to come in to look at the effect of mother's making comments about weight. The mother-daughter pair were asked to rate advertisements. Mothers in the control condition were told to make comments about the clothing in the ads, while the experimental condition mothers were instructed to make six weight or body related comments (e.g., "looking at these pictures makes me feel like I need to lose a bit of weight" or "I should go on a diet to look like those girls."). All conditions had the children sit alone in a room while they completed surveys. There was a bowl of exactly 50 pieces of candy placed next to the child, and they were told they could eat as much as they wanted. The amount of candy eaten was measured after the child was finished with the surveys. Researchers found that girls in the experimental condition experienced problematic eating attitudes, restrained eating habits, and decreased body satisfaction. Girls in the experimental condition also ate less candy than those in

usually achieved by photoshopping, filters, staged photos, with posts on how to detoxify or

increase one's health through diets that may eliminate an entire food group , and intensive fitness

routines. All these factors come together to create an individual's worldview of how they should

eat and how they think about food.

This study also has clinical implications in the prevention and treatment of eating

disorders, for example, informing the creation of risk management plans. In the treatment of

eating disorders, risk management plans for eating disorders are often created to outline the path

of treatment, which can include therapy goals, monitoring patients eating habits, and regular

contact with members on the treatment team (Herpertz et al., 2011; Robinson, 2014). Family

Social Media Use Integration Scale to measure social media use (Jenkins-Guarnieri et al, 2012),

the Family Influence Scale for parent's eating behavior (Kluck, 2010), and outcome variables

include the Eating Habits Questionnaire (Graham, 2003) and the Body Appreciation Scale-2

(Tylka & Wood-Barcalow, 2015) were used to measure participant's orthorexia scores, which is

defined as a rigid and disordered preoccupation with healthy eating, and body appreciation

respectively. In addition, explanation questions were included for participants' relationship with

parents' eating habits, social media use, and religion.

Based on previous research, I predict:

1. Practicing religion or being spiritual, with the exception of Christianity, will predict

   lower levels of orthorexia and higher body appreciation (Kertechian & Swami, 2016;

   Handelzalts et al., 2017; Wilhelm et al., 2019; Gates & Pritchard, 2009).

2. Certain SM content will be more of a risk factor than others (Berryman et al, 2018;

   Branley & Covey, 2017; Lewallen & Behm-Morawitz, 2016):

   1. SM content that may create a higher risk of low body appreciation scores and

      higher orthorexia scores may include fitness, diet, influencers, and health content

      (Branley & Covey, 2017; Lewallen & Behm-Morawitz, 2016)

   2. SM content that may pose a moderate risk for low body appreciation scores and

      higher orthorexia scores may include fandom, activism, news, cooking and

      recipes, comedy, and cosplay content, because topics mentioned may discuss and ., 2019 nrs,eivic

essays, and connecting with friends and community (Sweet et al., 2019; Blackwell

et al., 2021; Selkie et al., 2020).

3. I predict that maternal and paternal modeling of unhealthy eating behaviors, all

components of religiosity, integration of social media into one's social routine, and

emotions connected to social media will be significant predictors for orthorexia and body

appreciation. Specifically, maternal and paternal modeling of unhealthy eating behaviors

will predict higher levels of orthorexia and lower body appreciation; higher levels of

religiosity encompasses will predict lower levels of orthorexia and higher levels of body

appreciation; integration of social media to one's social routine and emotional connected

to social media will predict higher levels of orthorexia and lower levels of body

appreciation.

Methods

Participants

Participant recruitment occurred at Stockton University and the area community.

Stockton participants were either recruited through Stockton's SONA system or were contacted

through religious clubs and organizations on campus. Non-Stockton participants were recruited

by contacting directors and

answer. 78.8% of participants identified their race as White, 11.5% identify as Hispanic or

Latinx, 8% identify as Asian, 6.2% as African American, and 0.9% choose not to answer. 68.1%

of participants identified as straight or heterosexual, 12.4% identify as bisexual, 3.5% identify as

pansexual, 6.2% as queer, 2.7% as gay, 2.7% as questioning, 1.8% as other, and 0.9% as lesbian.

81.4% of participants identified their civil status as single, 13.3% partnered, 2.7% married, and

0.9% other.

Materials

Scales were selected for this study to measure the participants' religion, social media use,

parental eating habits and behaviors, and participants' propensity toward orthorexia and body

appreciation.

Predictor variables

Religion. The 10-item Centrality of Religiosity Scale (CRS-10) validated by Esperandio

et al (2019), is a shortened version of the Centrality of Religiosity Scale (Huber & Huber, 2013)

and were used to measure religiosity. There are 2 questions for each of the 5 dimensions, which

are intellect (e.g., "How often do you think about religious issues?"), ideology (e.g., "To what

extent do you believe that God or something divine exists?"), public practice (e.g., "How

important is it to take part in religious services?"), private practice (e.g., "How important is

personal prayer for you?"), and religious experience (e.g., "How often do you think about

religious issues?") The questions are answered on a five-point Likert scale, either by frequency 1

(Never) to 5 (Very Often), or by importance 1 (Not at all) to 5 (Very much so) Higher scores on

both scales indicates higher levels of religiosity. In addition, a forced choice question on religion

was included with the following options: Catholic, Protestant, Baptist, Orthodox, Muslim,

Jewish, Hindu, Buddhist, Pagan, Spiritual, none, or other. Participants were also asked "What is

children (FIS; Kluck, 2010). The FIS has 6 items, answered on a 5-point Likert scale 1 (Never)

to 5 (All the time). Participants answered three questions for the maternal influence and 3 for

the paternal influence (e.g., "Please think about the person who fits the role of mother (father)

while you were growing up and rate how often she (he) did each of the following: Criticized

your weight/size?"). Higher scores indicate that parents criticized weight and food choices,

thereby modeling unhealthy behaviors about food. The questions are the same for both.

In addition, participants were asked to indicate if their parent followed any diets in the

household, excluding religious diets, answered as either yes or no. If the participant indicates

yes, they indicated what kind of diet, where the choices are food restrictive (cutting out certain

food groups, like in keto diets), size restrictive (restricting portion sizes, such as in Weight

Watchers), vegetarian, vegan, gluten-free, or other. Participants were able to select more than

one choice, and if other is selected, they were

Results

The Family Influence Scale (FIS) was divided into Mother and Father scales, each with three items. These scores were separately summed and divided by three for an average score for each. The Social Media Use Influence Scale (SMUIS) was comprised of two subscales, Social Integration and Emotional Connection subscale (6 items) and Integration into Social Routines subscale (4 items). Scores for each subscale were summed and divided by the number of questions for an average score for each. In addition, the average score for the full SMUIS scale was calculated. The Centrality of Religion Scale was comprised of five subscales: intellect, ideology, public practice, private practice, and religious experiences, each with 2 items, which were each averaged. Then, all 10 items were averaged to create an overall score. The average scores for the Body Appreciation Scale-2 (BAS-2) and Eating Habits Questionnaire (EHQ) were calculated by summing up the scores of each question and dividing by the number of questions.

See Table 1 for all descriptive statistics. Items that were reported less than 3% by participants were not included.

The distribution of scores met all assumptions for independence between predictors, homoscedasticity, residuals evenly distributed and a linear relationship between predictors and responses.

Body Appreciation Scale-2

Using the enter model, Body Appreciation Scale-2 scores were regressed on the predicting variables of parental modeling (Family Influence Scale Mother and Father [FIS]), social media use (integration into social routines and social integration and emotional connection, SMUIS

predictors significantly predicted changes in BAS-2 scores, $R^2 = .432$, $F(10,104) = 7.14$, $p <$

.001. When examining the factors individually, it was found that public practice of religion

(CRS subscale), integration of social media to one's social routine (SMUIS subscale) and

currently being on a diet were significant predictors of higher body appreciation, while

religious ideology and intellect (CRS subscales), emotional connection to social media

(SMUIS subscale) and maternal and paternal criticism of weight (FIA) were significant

predictors of lower body appreciation. See the coefficients for this model in Table 2, and Table

3 for all correlations of the model.

Eating Habits Questionnaire

Using the enter model, scores of the Eating Habits Questionnaire were regressed on the

predicting variables (fe)parentalmodeling4family)Influence(Scale(Mother and Fatal4)t35(i22-l442t)-[u6 2r(d)Fs

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.001). No other significant correlations were found. I also examined whether content of social media predicted higher or lower levels of body appreciation and orthorexia. The content included for high risk was weight, diet, healthy eating, fitness, and influencer content; for moderate content, it was fandom, activism, comedy, news, current events, cooking and baking, and cosplay; and for low risk, it was art, music, literature, science, video essays, and interacting with friends and online communities. Counts were created for each of these to create three variables: High Risk, Medium Risk and Low Risk. A Spearman's correlation was conducted on content risk of social media and BAS-2 and EHQ scores. The results revealed high risk content was negatively correlated with higher EHQ scores ($r = .502$, $p < .001$) and not significantly correlated with BAS-2 scores. Moderate risk content was negative correlated with lower EHQ scores ($r = -.294$, $p < .001$) and BAS-2 scores ($r = -.204$, $p = .032$). Low risk was negatively correlated with EHQ scores ($r = -.321$, $p < .001$) and BAS-2 scores ($r = -.217$, $p = .029$).

Explanations were collected to better understand the results. See Tables 6, 7, 8, and 9 for examples of explanations of participants' parents' relationship with food, participants' relationship with social media and participants' relationship with their religion.

Discussion

The results supported that

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Those dimensions of religiosity that were focused on religious intellect and ideology were significant predictors of lower body appreciation, while public practice of religion was a significant predictor of higher body appreciation. For orthorexia, religio

Religious public practice based on attending religious services, and interacting with their religious community where modeling eating behaviors and norms can occur, which may explain it as a predictor of higher body appreciation and higher orthorexia. This may be where people are interacting with their communities' rules, norms, and opinions about how bodies should be valued and cared for, as it was given by a divine power, and how to eat and eat "well". In other words, participants who go to more religious services and place more importance on them may be interacting more with other people's ideas and opinions about food and eating, where people who are practicing on their own may be able to interpret religious texts on their own and come to their own conclusions about ideals. Religious intellect was a significant predictor of lower body appreciation and orthorexia, and religious ideology predicted lower body appreciation. This could be due to strict religious ideals within the reported religions, which may place importance on restriction. Many religious participants in this study identified themselves as some form of Christianity, which may have affected the results. This is consistent with Gates and Pritchard (2009), who found that strict religions predicted more negative eating habits and more disordered eating behaviors.

The hypothesis that different types of social media content would present different levels of risk on body appreciation and orthorexia was partially supported. High risk content was associated with higher orthorexia scores, and both moderate and low risk content were associated with lower orthorexia scores. A possible explanation may be the high-risk content focuses on food and the body (health, fitness, diet, and influencer content), possibly increasing the exposure to heathy eating content, therefore putting the person at risk of becoming more preoccupied with healthy eating. This may be true especially for diet content, which pushes overly healthy diets that may not actually be healthy, such as fasting diets. In addition,

moderate and low risk content do not consist of any content that relates heavily to health and healthy eating, which may decrease the risk of orthorexia. However, contrary to my predictions, moderate and low risk social media content was associated with lower body appreciation and there was no association between high-risk social media content and body appreciation. This may be due to the unrealistic body standards on social media that are hard to avoid, especially with the prevalence of photo alterations and filters. It may be possible that those who interact more with moderate and low risk content feel they focus less on their health, and therefore appreciate their body less.

These findings do, however, support the theory that different types of social media content do have different effects. This is somewhat supported by Lewallen and Morawitz (2016), which found that specifically thinspiration content on Pinterest increased the likelihood that participants engaged in extreme weight loss behaviors, as well as Engeln et al. (2020), which found that participants that interacted with Instagram scored lower on body satisfaction scores than those that used Facebook. This is also supported by studies such as Blackwell et al. (2021) which found that social media may help LGBT parents connect with community, and Selkie et al. (2020), which found that social media helped transgender youth connect with a community. All of these studies display, as well as the results found here, that different content that users interact with has a different effect.

Integration of social media into one's social routine was a significant predictor of higher body appreciation, while it was not a predictor for orthorexia. Having an emotional connection to social media was a significant predictor of lower body appreciation, while it was not a predictor of orthorexia. The emotional connection to social media measures one's emotional connection to social media, such as using social media as the primary means in

which one connects socially with friends and emotionally with the world. The increased time spent on social media, which thereby increases the probability of interacting with negative content, which may explain the lower body appreciation. It may also indicate that those who score high on this subscale are mostly communicating with friends on social media and may interact with them less in person. Past research also shows the link between social media use and body appreciation, including Branley and Covey (2017) and Lonergan et al. (2019) establish a relationship between social media use, body image, and eating habits.

Integration of social media into one's social routine was a significant predictor of higher body appreciation. This may be because the integration of social media into routine may not necessarily connotate an emotional connection to social media, such as being upset when they are unable to log into social media accounts, and may aid people in keeping in contact with friends and family. Not being emotionally connected to social media may allow those who score higher on integration into social routines and lower on emotional connection to social media to spend a moderate amount of time on social media instead of relying on social media for all forms of communication. It could also map onto the different risk groups, those who spend less time on social media may spend more time connecting with family and friends or looking at art instead of following influencers or interacting with fitness content.

Lastly, maternal and paternal criticism of weight, and thus modeling of unhealthy behaviors around food and eating, were significant predictors of lower body appreciation. However, these were not significant predictors for orthorexia, though trending towards significance for paternal criticism. Even though paternal criticism of eating behaviors was not a predictor when accounting for the other variables in the model for orthorexia, it did have a significant positive correlation, such that those who

rates of orthorexia. Criticism by parents, as examined by Hanford et al. (2018), is shown to

decrease body satisfaction, which may be directly related to body appreciation. For example,

making children feel like their body is not good enough. The results are also consistent with

previous research, such as Hanford et al. (2018), which showed that maternal negative comments

about the weight of others decreased their daughter's body satisfaction and increased unhealthy

eating attitudes.

Participant explanation supports this finding as well. For example, a participant, who

reported that their parents did not criticize their weight, still reported that "My mom always

struggled with food and finding a healthy balance between diets and lifestyle." They wrote the

following about their relationship with food:

"My relationship with food has always been a balancing act between going extreme on

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Limitations

Since most participants in this study were Stockton students, the study is limited in its subject pool. There were some community responses, however, many contacted religious organizations did not reply to communications. Participants were also mostly college-aged women, which limits the generalizability of the study to all genders (men and gender-diverse participants) and ages.

A second limitation is the scale used for parental modeling of unhealthy eating behaviors measured criticism about eating behaviors and weight specific to the individual or child. While I expected that criticizing someone's weight is modeling unhealthy behaviors, a measure that is specific to modeling may be more effective in determining the influence of a parent unhealthy eating behaviors and rigid restrictive dieting and exercise behaviors on their children's eating behaviors.

Future Research

Based on limited existing research, it is critical for future research on body appreciation and image, and propensity for eating disorders to examine a more diverse population, such as those who follow non-Abrahamic religions, men, gender diverse participants, and more varied ages, data should be collected from targeted samples. Future research should include measures for disordered eating that maps onto the symptoms of other eating disorders, such as anorexia, binge eating, or bulimia. This study only focuses on criticism from the parents to the child, and according to qualitative data, it seems that just modeling unhealthy behaviors, such as dieting, commenting on one's own body, and overeating have a long-lasting effect on children. Lastly, this study should be replicated intergenerationally, to better understand the effect of generational modeling. Future research should also measure more parental modeling behaviors,

such as excessive

References

Akrawi, D., Bartrop, R., Potter, U., & Touyz, S. (2015). Religiosity, spirituality in relation to

disordered eating and body image concerns: A systematic review. Journal of Eating

Disorders, 3(1). https://doi.org/10.1186/s40337015-0064-0

Alimoradi, Z., Golboni, F., Griffiths, M. D., Broström, A., Lin, C.-Y., & Pakpour, A. H. (2020).

Weight-related stigma and psychological distress: A systematic review and meta-

analysis. Clinical Nutrition, 39(7), 2001–2013.

https://doi.org/10.1016/j.clnu.2019.10.016

Appolinario, J. C., Sichieri, R., Lopes, C. S., Moraes, C. E., da Veiga, G. V., Freitas, S., Nunes,

M. A., Wang, Y.-P., & Hay, P. (2022). Correlates and impact of DSM-5 binge eating

disorder, bulimia nervosa and recurrent binge eating: A representative population survey

in a middle-income country. Social Psychiatry and Psychiatric Epidemiology, 57(7),

1491–1503. https://doi.org/10.1007/s00127-022-02223-z

Arcelus, J., Mitchell, A. J., Wales, J., & Nielsen, S. (2011). Mortality rates in patients with

anorexia nervosa and other eating disorders. Archives of General Psychiatry, 68(7), 724.

https://doi.org/10.1001/archgenpsychiatry.2011.74

Arroyo, A., Stillion Southard, B. A., Cohen, H., & Caban, S. (2018). Maternal communication

strategies that promote body image in daughters. Communication Research, 47(3), 402–

427. https://doi.org/10.1177/0093650218781737

Avila, C., Holloway, A. C., Hahn, M. K., Morrison, K. M., Restivo, M., Anglin, R., & Taylor, V.

    H. (2015). An overview of links between obesity and Mental Health. Current Obesity

    Reports, 4(3), 303–310. https://doi.org/10.1007/s13679-015-0164-9

Berryman, C., Ferguson, C. J., & Negy, C. (2017). Social media use and mental health among

    young adults. Psychiatric Quarterly, 89(2), 307–314. https://doi.org/10.1007/s11126-

    017-9535-6

Blackwell, L., Hardy, J., Ammari, T., Veinot, T., Lampe, C., & Schoenebeck, S. (2016, May).

    LGBT parents and social media: Advocacy, privacy, and disclosure during shifting social

    movements. In Proceedings of the 2016 CHI conference on human factors in computing

    systems (pp. 610-622).

Branley, D. B., & Covey, J. (2017). Pro-ana versus pro-recovery: A content analytic comparison

    of social media users' communication about eating disorders on Twitter and Tumblr.

    Frontiers in Psychology, 8. https://doi.org/10.3389/fpsyg.2017.01356

Bratman, S. (1997). Orthorexia nervosa. Yoga Journal, 136, 42-50.

Bryan, S., Afful, J., Carroll, M., Te-Ching, C., Orlando, D., Fink, S., & Fryar, C. (2021). NHSR

    158. National Health and Nutrition Examination Survey 2017–March 2020 pre-pandemic

    data files. https://doi.org/10.15620/cdc:106273

C, G. E. (2003). Development of the eating habits questionnaire . Doctoral Dissertation, Texas

    A&M University.

Centers for Disease Control and Prevention. (2015, November 6). Products- health e stats -

overweight among children and adolescents, 1999-2002. Centers for Disease Control and

Prevention. Retrieved November 27, 2022, from

https://www.cdc.gov/nchs/data/hestat/overweight/overweight99.htm

Centers for Disease Control and Prevention. (2022, May 17). Adult obesity facts. Centers for

Disease Control and Prevention. Retrieved November 27, 2022, from

https://www.cdc.gov/obesity/data/adult.html

Centers for Disease Control and Prevention. (2022, May 17). Childhood obesity facts. Centers

for Disease Control and Prevention. Retrieved November 27, 2022, from

https://www.cdc.gov/obesity/data/childhood.html

Centers for Disease Control and Prevention. (2022, September 24). Health effects of overweight

and obesity. Centers for Disease Control and Prevention. Retrieved November 27, 2022,

from https://www.cdc.gov/healthyweight/effects/index.html

Dodor, B. (2012). The impact of religiosity on health behaviors and obesity among African

Americans. Journal of Human Behavior in the Social Environment, 22(4), 451–462.

https://doi.org/10.1080/10911359.2012.664977

Dunn, T. M. & Bratman, S. (2016). On orthorexia nervosa: A review of the literature and

proposed diagnostic criteria. Eating Behaviors, 21, 11 - 17.

Doumit, R., Khazen, G., Katsounari, I., Kazandjian, C., Long, J. A., & Zeeni, N. (2015).

Investigating vulnerability for developing eating disorders in a multi-confessional

Gates, K., & Pritchard, M. (2009). The relationships among religious affiliation, religious angst, and disordered eating. Eating and Weight Disorders—Studies on Anorexia, Bulimia and Obesity 14(1), e11-e15.

Geller, S., Sidi, Y., Levy, S., & Handelzalts, J. E. (2021). Body image and religion: Explicit and implicit attitudes among three denominations of Jewish women. Psychology of Religion and Spirituality. https://doi.org/10.1037/rel0000450

Handelzalts, J. E., Geller, S., Levy, S., Vered, T., & Fisher, S. (2017). Body image among three denominations of Jewish women in Israel. International Journal of Culture and Mental Health, 10(2), 206–216. https://doi.org/10.1080/17542863.2017.1290126

Handford, C. M., Rapee, R. M., & Fardouly, J. (2018). The influence of maternal modeling on body image concerns and eating disturbances in preadolescent girls. Behaviour Research and Therapy, 100, 17–23. https://doi.org/10.1016/j.brat.2017.11.001

Health consequences. National Eating Disorders Association. (2018, February 22). Retrieved November 27, 2022, from https://www.nationaleatingdisorders.org/health-consequences

Homan, K. J., & Boyatzis, C. J. (2010). Religiosity, sense of meaning, and health behavior in older adults. International Journal for the Psychology of Religion, 20(3), 173–186. https://doi.org/10.1080/10508619.2010.481225

Huber, S., & Huber, O. W. (2012). The centrality of religiosity scale (CRS). Religions, 3(3), 710–724. https://doi.org/10.3390/rel3030710

Hudson, J. I., Hiripi, E., Pope, H. G., & Kessler, R. C. (2007). The prevalence and correlates of

eating disorders in the national comorbidity survey replication. Biological Psychiatry

61(3), 348

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! the challenges and

opportunities of social media. Business Horizons, 53(1), 59–68.

https://doi.org/10.1016/j.bushor.2009.09.003

disorders in adolescence. International Journal of Eating Disorders, 53(5), 755–766.

https://doi.org/10.1002/eat.23256

Mahmood, L., Flores-Barrantes, P., Moreno, L. A., Manios, Y., & Gonzalez-Gil, E. M. (2021).

The influence of parental dietary behaviors and practices on children's eating habits.

Nutrients, 13(4), 1138. https://doi.org/10.3390/nu13041138

McInroy, L. B., McCloskey, R. J., Craig, S. L., & Eaton, A. D. (2019). LGBTQ+ youths'

community engagement and resource seeking online versus offline. Journal of

Technology in Human Services, 37(4), 315–333.

https://doi.org/10.1080/15228835.2019.1617823

Mourão, R. R., & Brown, D. K. (2021). Black lives matter coverage: How protest news frames

and attitudinal change affect social media engagement. Digital Journalism, 10(4), 626–

646. https://doi.org/10.1080/21670811.2021.1931900

Mundt, M., Ross, K., & Burnett, C. M. (2018). Scaling social movements through social media:

The case of black lives matter. Social Media + Society, 4(4), 205630511880791.

https://doi.org/10.1177/2056305118807911

Nagata, J. M., Garber, A. K., Tabler, J. L., Murray, S. B., & Bibbins-Domingo, K. (2018).

Prevalence and correlates of disordered eating behaviors among young adults with

overweight or obesity. Journal of General Internal Medicine, 33(8), 1337–1343.

https://doi.org/10.1007/s11606-018-4465-z

Niedzielski, A. & Kaźmierczak-Wojtaś, N. (2021). Prevalence of orthorexia nervosa and its

   diagnostic tools - A literature review. International Journal of Environmental Research

   and Public Health, 18(10), 5488.

Pew Research Center. (2022, November 16). Social Media Fact sheet. Pew Research Center:

   Internet, Science & Tech. Retrieved November 27, 2022, from

   https://www.pewresearch.org/internet/fact-sheet/social-media/

Puhl, R., & Suh, Y. (2015). Health consequences of weight stigma: Implications for obesity

   prevention and treatment. Current Obesity Reports, 4(2), 182–190.

   https://doi.org/10.1007/s13679-015-0153-z

Rodgers, R. F., Lowy, A. S., Halperin, D. M., & Franko, D. L. (2015). A meta-analysis

   examining the influence of pro-eating disorder websites on body image and eating

   pathology. European Eating Disorders Review, 24(1), 3–8.

   https://doi.org/10.1002/erv.2390

Rounsefell, K., Gibson, S., McLean, S., Blair, M., Molenaar, A., Brennan, L., Truby, H., &

   McCaffrey, T. A. (2019). Social media, body image and food choices in Healthy Young

   Adults: A mixed methods systematic review. Nutrition & Dietetics, 77(1), 19–40.

   https://doi.org/10.1111/1747-0080.12581

Sala, M., Reyes-Rodríguez, M. L., Bulik, C. M., & Bardone-Cone, A. (2013). Race, ethnicity,

   and eating disorder recognition by peers. Eating Disorders, 21(5), 423–436.

   https://doi.org/10.1080/10640266.2013.827540

Seekis, V., & Barker, G. (2022). Does #beauty have a dark side? testing mediating pathways

between engagement with beauty content on social media and cosmetic surgery

consideration. Body Image, 42, 268–275. https://doi.org/10.1016/j.bodyim.2022.06.013

Selki

Table 1

Means Descriptive Statistics for Parental Modeling, Religiosity and Social Media

Other	8.8%
Gluten-Free	4.4%

Current Diet (Yes)

Table 2

Coefficients for Multiple Regression Predicting Body Appreciation Score

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error		t	Sig.
1 (Constant)	2.832	0.574		4.930	< 0.001
CRS Subscale Intellect	-0.196	0.089	-0.259	-2.210	0.030
CRS Subscale Ideology	-0.176	0.085	-0.252	-2.077	0.040
CRS Subscale Public Practice	0.314	0.105	0.403	3.004	0.003
CRS Subscale Private Practice	0.171	0.087	0.269	1.963	0.053
CRS Subscale Religious Experience	-0.070	0.106	-0.096	-0.663	0.509
SMUIS Subscale Social Integration and Emotional Connection	-0.322	0.106	-0.295	-3.051	0.003
SMUIS Subscale Integration into Social Routines	0.425	0.142	0.300	2.989	0.004
FIS Mother	-0.165	0.073	-0.194	-2.539	0.026
FIS Father	-0.173	0.068	-0.214	-2.539	0.013
Current Diet	0.478	0.152	0.252	3.146	0.002

*CRS Total and SMUIS Total Excluded by SPSS

Table 3

Correlations for Body Appreciation Z-Score

	Pearson's R	Significance
CRS Intellect	-0.092	0.167

Table 4

Coefficients for Multiple Regression Predicting Eating Habits Questionnaire Score

	Unstandardized Coefficients	Standardized Coefficients

Table 7

Sample Explanations of Relationship with Social Media

Relationship with Social Media

Mine is very good, I use it as an outlet for fun, and entertainment, but I don't use it as a main source of communication or friends. I post whatever I want to on there and don't really care what others will think when they see what I post.

I have a love hate relationship. I love to see what my friends post and I like to interact with them, but I'm constantly comparing myself to what I see online.

I don't have the healthiest relationship, but certainly not the worst. I stay on social media apps for longer than I should, but it is not an absurd or concerning amount of hours either. I do use and check social media when I wake up and before I sleep, but it is more out of bd, but T   0 scn   edi buoc i hee (e o)(not)-4.6 ( )10

Table 9

Sample Explanations for Relationship with Food

Relationship with Food Overall
I had an eating disorder for 2 years and am now much healthier and happier. I restricted myself and ate very small portions, but realized my health was declining rapidly and made me snap out it. Food is fuel!
I grew up thinking any unhealthy foods were bad and disgusting. We rarely had unhealthy food in the house but when we did, I would often eat it sneakily and eat a lot. As I have gained more independence, my relationship with food has gotten better. Since I have access to unhealthy foods if I really want them, I do not binge on them or crave them as much. I try my best to eat healthy and drink a lot of water, but I am not usually afraid of eating unhealthy foods anymore.
I have always had a rough relationship with food, from sneaking "bad" and "unhealthy" foods around my parents to skipping out on meals. It has been such a rollercoaster and even now, food is always on my mind. I have been trying to be more intuitive and mindful when I eat, but it also means that food is still on my brain 24/7, which can make me go crazy. I tend to binge eat a lot and then not eat at all another day. It has been getting better, especially that I have been working out, but there still days that I give up. I am still trying to get a hold of my relationship with food.
I try to regularly eat healthy but sometimes binge on snacks and junk food.
I have a good relationship wi

Appendix A

Social Media Use Integration Scale (Jenkins-Guarnieri et al, 2012)
"Facebook" replaced by "social media"

1= Strongly Disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree, 5= Strongly Agree

1. I feel disconnected from friends when I have not logged into Facebook
2. I would like it if everyone used Facebook to communicate
3. I would be disappointed if I could not use Facebook at all
4. I get upset when I can't log on to Facebook
5. I prefer to communicate with others mainly through Facebook
6. Facebook plays an important role in my social relationships
7. I enjoy checking my Facebook account
8. I don't like to use Facebook
9. Using Facebook is part of my everyday routine
10. I respond to content that others share using Facebook

x   Which social media apps do you use? (Facebook, Instagram, Tumblr, Pinterest, Tiktok, Twitter, YouTube, Snapchat, Reddit, or other)
x   What content do you interact with? (music, art, cosplay, fandom, activism, news, current events, health, fitness, diet, cooking/baking, healthy eating, influencers, science, video essays, literature, comedy, and interacting with friends and community)
x   What 3 social media content topic do you interact with most? (Open-ended)
x   Qual: What is your relationship with social media?

Centrality of Religion- 10 (CRS-10)
(Esperandio et al., 2019)

1. How often do you think about religious issues?
    1. 5- Very often, 4-Often, 3- Occasionally, 2- Rarely, 1- Never
2. To what extent do you believe that God or something divine exists?
    1. 5- Very much, 4- Quite a bit, 3- Moderately, 2- Not very much, 1- Not at all
3. How often do you take part in religious services?
    1. 5- Very often, 4-Often, 3- Occasionally, 2- Rarely, 1- Never
4. How often do you pray?
    1. 5- Very often, 4-Often, 3- Occasionally, 2- Rarely, 1- Never
5. How often do you experience situations in which you have the feeling that God or something divine intervenes in your life?
    1. 5- Very often, 4-Often, 3- Occasionally, 2- Rarely, 1- Never
6. How interested are you in learning more about religious topics?
    1. 5- Very much, 4- Quite a bit, 3- Moderately, 2- Not very much, 1- Not at all

7. To what extent do you believe in an afterlife—e.g., immortality of the soul, resurrection of the dead, or reincarnation?
    1. 5- Very much, 4- Quite a bit, 3- Moderately, 2- Not very much, 1- Not at all
8. How important is it to take part in religious services?
    1. 5- Very much, 4- Quite a bit, 3- Moderately, 2- Not very much, 1- Not at all
9. How important is personal prayer for you?
    1. 5- Very much, 4- Quite a bit, 3- Moderately, 2- Not very much, 1- Not at all
10. How often do you experience situations in which you have the feeling that God or something divine wants to communicate or to reveal something to you?
    1. 5- Very often, 4-Often, 3- Occasionally, 2- Rarely, 1- Never

- Has your household ever followed religious diets? (Yes/No)
    o If yes is selected: Which diet has your household followed? (Kosher, Halal, vegetarian for religious reasons, vegan for religious reasons, or other)
- Have you ever fasted for a religious reason? (Yes/No)
- Qualitative: What is your relationship with your religion?

Family Influence Scale (Kluck, 2010)

1= Never, 2= Rarely, 3= Sometimes, 4= Often, 5=

> (restricting portion sizes, such as in Weight Watchers), vegetarian, vegan, gluten-free, or other)

x   What kind of relationship did your parents have with food?

Eating Habits Questionnaire (Graham, 2003)

1= False, not at all true 2 = Slightly true 3 = Mainly true 4 = Very true

1. I am more informed than others about healthy eating.
2. I turn down social offers that involve eating unhealthy food.
3. The way my food is prepared is important in my diet.
4. I follow a diet with many rules.
5. My eating habits are superior to others.
6. I am distracted by thoughts of eating healthily.
7. I only eat what my diet allows.
8. My healthy eating is a significant source of stress in my relationships.

10. I feel like I am beautiful even if I am different from media images of attractive people (e.g.,
models, act (m)-6 1difI act (act e(act / (if)attr)J)2 8i(mp])/P me10p002 Tc 077.4 744.84108 626.00 (I)[(H)]TJaTJ