8-4-2023

Parenting Practices In Adolescence And Their Influence On Subsequent Eating Disorders

Dominica Colavito
Syracuse University

Abstract

Eating disorders in adolescents have increased in recent years. Risk factors for eating disorders come from many domains of life, though there seems to be a gap in knowledge on the effects of family environment, more specifically parenting practices, and their influence on eating disorder pathology. This paper seeks to investigate parenting practices as risk factors for eating disorders, including Anorexia Nervosa (AN) and Bulimia Nervosa (BN), in adolescents. Given increased prevalence, there is a need for updated conversations on risk factors and influences on eating disorders such as Anorexia Nervosa and Bulimia Nervosa to contribute to new prevention and intervention efforts. A secondary data analysis was conducted using data from the National Longitudinal Survey's NLS97 dataset. A multinomial logistic regression was conducted using MPlus 8.7 to determine whether presence of certain parenting practices is associated with eating disorders in adolescents. Three groups were compared: those who selected they had a mental health condition, those who selected "eating disorder" from the list of conditions, and those of the "normative" group of those who did not select that they had a mental health condition. The regression was broken down into three models: those with variables related to the mother, those with variables related to the father, and one full model. Significant results in all three models demonstrated that females had a higher odds of being in the eating disorder category compared to the normative category and that Black participants had a higher odds of being in the normative category than White participants. Non-significant results showed a potential pattern of those with parents of the permissive parenting style may have higher odds of being in the normative category. Main limitations of this study include small sample size and vague and exclusionary questionnaire material. Future research should further investigate

patterns of demandingness and responsiveness within parenting styles and how it could be associated with a subsequent eating disorder diagnosis.

Keywords: Parenting practices, eating disorders, adolescence, parenting, adolescent development

Parenting Practices in Adolescence and their Influence on Subsequent Eating Disorders

by

Dominica Colavito

B.A., Syracuse University, 2021

Thesis

Submitted in partial fulfillment of the requirements for the degree of
Master of Science in Human Development and Family Science

Syracuse University
June 2023

Acknowledgements

I want to thank advisor, Dr. Ramadoss for helping me through every single step since the beginning and for bringing great advice and solutions. To my committee: Dr. Merrin, Dr. Brann, and Dr. Razza, for their wonderful presence and invaluable feedback during this process. I also want to thank my parents and by brother, Nicholas, who have supported me through every dream and rash decision. A very special thanks to my follow classmates, Suzanne, Chloe, and Isabella for keeping me sane, being ears to vent to, and for persevering through this degree with me.

Table of Contents

INTRODUCTION **1**

Objective of the Study **2**

LITERATURE REVIEW **3**

Parenting Style **5**

Family Routines **6**

Parental Monitoring **7**

Theoretical Framework **8**

Gaps in the Literature **13**

PURPOSE **15**

METHODOLOGY **16**

Participants and Procedures **16**

Measures **19**

Analytical Plan **22**

RESULTS **23**

DISCUSSION **25**

Limitations **30**

Future Directions **32**

APPENDIX A **35**

REFERENCES **50**

VITA **56**

List of Illustrative Materials

Table 1.....35

Table 2.....36

Table 3.....37

Table 4.....38

Variable List.....39

Parenting Practices in Adolescence and its Influences on Subsequent Eating Disorders

Feeding and eating disorders are characterized by disturbances in eating or its related behaviors that changes the consumption and absorption of food (American Psychological Association, 2013). These disturbances culminate in a significant impairment in physical health and/or in the psychosocial functioning of the person (American Psychological Association, 2013). Anorexia nervosa (AN) is an eating disorder that is characterized by a disturbance in the experience of body shape or weight, leading to significantly low body weight and an intense fear of gaining it or becoming "fat", therefore interfering with weight gain while at a low body weight (American Psychological Association, 2013). The American Psychological Association (2013) characterizes bulimia nervosa (BN), another type of eating disorder, as recurrent binge eating episodes (e.g. eating an abnormally large amount of food or feeling a lack of control of eating) followed by compensatory behaviors that are inappropriate at preventing weight gain (e.g. fasting, vomiting, etc). Eating disorders are among the most prevalent among adolescents, and often result in being chronic (Herpertz-Dahlmann, 2015). There are very few publications specifically investigating the prevalence of eating disorders, especially within recent years (Micali et al. 2013). Swanson et al. (2011) analyzed a nationally representative sample of adolescents in the United States and reported lifetime prevalence rates of Anorexia Nervosa and Bulimia Nervosa at 0.3 percent and 0.9 percent, respectively. Herpertz-Dahlmann (2015) reported range of age of onset of Anorexia Nervosa between thirteen and eighteen years old. They also reported that though Bulimia Nervosa prevalence rates are scarce, the proposed criteria ranges between one to five percent. Though prevalence rates of bulimia nervosa are on the decline since the 1990s, the rates of eating disorders have had a significant increase, so

information and knowledge on the subject is crucial in prevention and intervention efforts (Herpertz-Dahlmann, 2015).

Risk factors for eating disorders are multifactorial, coming from different domains of an individual's life. When looking into research behind the development of eating disorders, risk factors typically range from the fear of fatness and over-concern about one's body to internalization of body ideals and perfectionism (Williamson et al., 2004). Risk factors for different eating disorders will vary depending on the associated symptomology. For anorexia nervosa (AN), examples of potential risk factors are genetic vulnerability, certain obsessive traits, negative self-image, and comorbidity with certain psychiatric disorders (Schmidt, 2002). Examples of risk factors for bulimia nervosa (BN) include exposure to premorbid dieting or related comments pertaining to weight or food, and risk factors from other psychiatric disorders (Schmidt, 2002). In their work, Williamson et al. (2004) stated that family environment could act as a distal risk factor for the development of an eating disorder. Further, Schmidt (2002) describes that attachment patterns and parenting between mother and child may serve as a risk factor for AN, and childhood environmental risk factors may overlap with risk factors for BN.

Objective of the Study

This paper aims to explore the effects of parenting practices on eating disorder pathology, by looking at whether certain practices during adolescence link to an eating disorder diagnosis. The parenting practices analyzed will be parenting style, family routines, and parental monitoring. The proceeding literature review will describe the importance of each parenting practice on adolescent health and how it may be linked to eating disorder pathology, including a theoretical basis for the relationship between the constructs.

Literature Review

Parenting practices greatly influence the environment in which a child grows up in. The behaviors and practices that parents exhibit create an environment that directly influence a child's development (Zakeri & Karimpour, 2011; Golan & Crow, 2004). How the parents act towards their children shape internal working models that influence cognitive and psychosocial development (Zakeri & Karimpour, 2011). Parents are primary role models for their children and their actions can shape their development (Golan & Crow, 2004). Good parenting is critical for prosocial development, especially in terms of emotions and behaviors (Golan & Crow, 2004). Emotional and cognitive development are among the key domains influenced by parenting practices, with self-efficacy, emotion control, and formation of habits being molded by the practices and behaviors of parents (Gonçalves et al., 2018; Golan & Crow, 2004).

The parenting environment in which a child grows up with can also influence the emotions and mentality the child experiences. As an example, research has shown that practices characterized within certain parenting styles can influence how a child's self-esteem develops. Zakeri & Karimpour (2011) concluded that parents who demonstrate acceptance and involvement and allow for autonomy act as positive predictors for their child having a healthy self-esteem. Warmth and support from parents create a collaborative environment that allows children to be guided through their needs, associating with high self-regulation of emotions (Enten & Golan, 2009). Authoritative parenting is commonly regarded as one of the best parenting styles to use that lead to prosocial outcomes. (Hughes et al, 2005; Enten & Golan, 2009). Enten & Golan (2009) found that parents using authoritative parenting is the most consistent of the styles in identity achievement in youth. They posited that it gives confidence and self-esteem that the child needs to develop effective skills to face challenges.

Eating disorder pathology and psychosocial health directly influence each other. Adolescents with eating disorders have often also struggled with other psychological problems that are subclinical such as internalizing behaviors (Cernigla et al., 2017). Psychosocial difficulties that are often common in adolescent development are inflated in those with disordered eating behaviors. Psychosocial difficulties within eating disorder symptomology relate mainly to self-esteem and body satisfaction, with those with eating disorders often having low levels of both (Davidson & McCabe, 2010) Obsessiveness is a key feature in many with eating disorders, whether it be with their weight, shape, or outward appearance, and this obsessiveness and need for control can negatively affect one's mental health (Williamson et al., 2004; Haycraft & Blissett, 2010).

Current studies focus on the mental health of adolescents in terms of parenting practices, but they tend to focus mainly on anxiety disorders and depression. Eating disorders are highly concurrent with both, with high rates of comorbidity between eating disorders and anxiety disorders (Herpertz-Dahlmann, 2015; Norris et al., 2012). Salbach-Andrae et al., (2007) estimated that sixty percent of adolescent patients displayed some type of mood disorder, including Major Depressive Disorder. Bühren et al, (2013) concluded that almost half of those who had Anorexia Nervosa met the criteria for at least one additional psychiatric disorder, including depressive symptoms, self-harm behaviors, and suicidality. Given the links between parenting practices and mental health conditions, and the comorbidity of eating disorders and depression and anxiety, it can be suggested that parenting practices may influence eating disorders.

Parenting Style

Baumrind (1971) is one of the pioneers that coined the terms and definitions of parenting styles and the four sub-types within them. Parenting styles are specific patterns and combinations of parenting practices as they relate to child development (Kuppens, Ceulemans, 2018). The four parenting styles most commonly regarded in research are authoritative, authoritarian, permissive, and neglectful. These styles are defined within two main parameters: demandingness and responsiveness. For the purpose of this paper, demandingness and responsiveness are to be defined within the terms described by Enten & Golan (2009). The authors referred to demandingness as discipline, supervision, and confrontation of the child in keeping them within the demands of the family and obedience. They further referred to responsiveness as how supportive, uplifting, and acquiescent a parent is in creating self-regulation and assertion.

In more recent research, theorists have added more components to bolster the four parenting styles. Adding in dimensions of support and control in parenting takes an encompassing view of the affective nature of the relationship between parent and child (Kuppens & Ceulemans, 2018; Cummings et al., 2000). For example, Kuppens & Ceulemans (2018) investigated parental control and support and their influences on child development, concluding that psychological control was a strong influence in the categorization of parenting style. Authoritarian parenting style is characterized as high in demandingness and low in responsiveness (Moore et al. 1999; Baumrind, 1971). Authoritarian parents shape and control the behavior of children through rigid standards and value obedience (Baumrind, 1971). Respect for authority is paramount, and these parents will use forceful measures as discipline to maintain order and structure (Baumrind, 1971). An authoritative parenting style is defined as high in both demandingness and responsiveness (Moore et al., 1999; Baumrind, 1971). Baumrind (1971) characterizes this style as similar to authoritarian in its strictness and set standards, but it also

recognizes the child interests, attributes, and autonomy. They explain that this style recognizes that the parent is the authority figure but does not exhibit a superiority complex with rigid obedience from the child. The permissive parenting style is characterized as low in demandingness and high in responsiveness (Moore et al., 1999; Baumrind, 1971). Also known as the indulgent parenting style, Baumrind (1971) described these behaviors and practices as affirmative towards the child, representing themselves as a passive resource in shaping behavior. Further, unlike authoritative and authoritarian, permissive parents do not make many demands and lack control and obedience. The fourth parenting style, indifference-uninvolved, also known as neglectful, is characterized as low in both demandingness and responsiveness (Moore et al., 1999). There is very little control over the child, as well as low involvement, with these children often having the least favorable outcomes out of the four parenting styles (Hughes et al., 2005; Kuppens & Ceulemans, 2018).

Family Routines

Routines within a family bring structure that create and sustain healthy lives and promote well-being (Koome, Hocking, & Sutton). In their work, Koome, Hocking, and Sutton (2012) posit that routines strengthen bonds between family members as well as maintain order in the household. The authors describe that routines are what bring family members with intersecting lives together, as it gives to the social, mental, and physical development to children. Further, they explain that routines are especially important for families with adolescents with mental illness, so that they may also learn how to recognize, shape, and uphold positive routines. Family interactions are also associated with higher self-esteem and positive attitudes in adolescents, as well as promote mental well-being and resilience (Evans & Rodger, 2008; Koome, Hocking, & Sutton, 2012; Schultz-Krohn, 2004; Rask et al., 2004). Additionally, keeping a routine of doing

activities as a family can be beneficial to the well-being of adolescents. Offer (2013) found that activities such as family mealtime and leisure were beneficial to their emotional well-being, noting changes in positive affect, activity engagement, and lower levels of stress. Offer (2013) described positive affect as feeling cheerful, good about oneself, and happy. Overall, it can be noted that the presence of routines in the family context can positively contribute to the mental and physical health of adolescents.

Parental Monitoring

Parental monitoring refers to parenting behaviors that involve paying attention to and tracking the child, as well as whether an adolescent will share information or receive support from the parent (Disjoin & McMahon, 1998; Cadman et al., 2022). Dishion & McMahon (1998) analyzed parental monitoring and created a conceptual formulation for development and prevention research. The authors suggest that parental monitoring is influential on safety, antisocial behaviors, and substance abuse. They theorized that parental monitoring would change throughout a child's development based on changing environments and contextual influences. Though it becomes tricky to track children as they become adolescents and have more autonomy, they hypothesized that earlier monitoring could predict progression of behaviors as the child ages. Parental monitoring is an influential factor on the mental health of adolescents. Yu et al. (2006) analyzed the relationship between parental monitoring and youth depression and risk behaviors and concluded that depressed youth perceived lower levels of parental monitoring than their non-depressed peers, as well as impaired perceptions of monitoring and communication. Cadman et al. (2022) examined the prospective relationship of parental monitoring on adolescent mental health and found that higher levels of monitoring were associated with lower likelihood of mental health conditions such as depression, anxiety, and self-harm.

Theoretical Framework

Cognitive Theory

Cognitive theory of eating disorders suggests that a central risk factor to the development of eating disorders are dysfunctional attitudes towards appearances. Spangler (2002) concluded in their study that dysfunctional beliefs about oneself predicted dissatisfaction with their body, food restriction behaviors, lower self-esteem, and internalization of the 'thin-ideal'. In their work, they described the cognitive theoretical model that posits the progression of eating disorders and associated behaviors. Dysfunctional thoughts are the catalyst for symptom progression, with a central importance being to perfectionist beliefs about appearance, weight, and body shape. These thoughts and feelings of perfectionism and dissatisfaction with your body then develop into restrictive eating or other behaviors in order to change your body. Then, the physiological and psychological results of food deprivation can contribute to the continuation of eating disorders, making a continuous cycle (Spangler, 2002).

Garner and Bemis' (1982) theory on anorexia nervosa focuses on a patient's core need to become thin as well as the sources of this desire. They further hypothesize that distortions are common issues within anorexia nervosa patients, an example being warped expectations of others they feel they must live up to, leading to maladaptive methods to alleviate the stress of these expectations, leading to disordered eating behaviors. Fairburn et al.'s (1986) theory behind bulimia nervosa had its start in Garner & Bemis '(1982) theory on anorexia nervosa. Similarly, Fairburn et al (1986) theorized that those with bulimia nervosa may also tie their self-worth with their body weight and shape, and share similar dysfunction and cognitive distortions, especially within processing information. However, with bulimia nervosa, they explain that these intense thoughts and rules to maintain the shape or weight they desire end up being nearly impossible to

uphold, and lead to dichotomous thinking and a feeling of catastrophe. This is then linked to temporary abandonment of their ways in a binge episode (Fairburn et al., 1986). Those with BN also commonly struggle an internal battle of positive and negative beliefs about eating, creating a distressing dichotomy that is coupled with feelings that they have lack of control overeating during a binge episode (Cooper et al., 2004). Cooper (1997) suggests that cognitive theory on eating disorders should also incorporate ideas of identity, early childhood experiences and development, and one's core beliefs.

Attachment Theory

Attachment theory is one of the most prominent in regard to explaining the relationships between parenting and eating disorders in their children. This theory was originally coined by Bowlby (1958) as a way to explain general parent-child attachments through safety and security. Tasca et al. (2011) described this theory as how interactions between a parent and their child can alter the course of their development. Further, they state the development of different schema, as well as implicit memories, from parent-child interactions serves as a template that the child uses for how they perceive and interact in future relationships. Outside of relationships, parental attachment can also affect worldview, affect regulation, and how one responds and copes with distress (Tasca et al., 2011).

The three types of attachment properties are security, anxiety, and avoidance. Tasca et al. (2011) created a comprehensive definition of the types of attachment by looking at how one interacts with the world, regulates their affect, and copes with distress. They stated that those with secure attachments often do not feel threatened and are able to keep a consistent and mindful knowledge of feelings, experiences, and relationships for both themselves and others. Further, those with attachment avoidance lack trust in others and believe the world is dangerous,

they evade vulnerability and situations that will result parental behaviors that would worsen those emotions, and their defensive memory often blocks access to painful memories. The authors finally explained that those with attachment anxiety are hyper-vigilant of their surroundings, do not know how to regulate themselves and often have an exaggerated perception of their negative affect, and display a preoccupation or constant immersion in past experiences, dictating their actions in anticipation of negative consequences.

Within research on eating disorders, insecure and anxious types of attachment are highly present in women with eating disorders, and the anxiety leads to poor self-regulation and exaggerated perceptions (Tasca eta al., 2011; Ringer & Crittenden, 2006). Attachment anxiety is also associated with greater symptoms of eating disorders as well as poor treatment outcomes compared to those without (Illing et al., 2010).

Orzolek-Kronner (2002) suggests that when a child has established a secure base with their caregiver, can they then freely move away. In their study, they examined attachment and proximity-seeking behaviors in adolescent girls with eating disorders with their mothers. They defined proximity-seeking behaviors as food restriction, binging, and purging. Orzolek-Kronner (2002) found that these behaviors result in or stimulate physical closeness between the teen and her mother, and that these behaviors may mimic the feeding behaviors of mother and infant feeding, with the teenager now relying on the mother for food. It could then be hypothesized that those with an eating disorder may have a compromised base and their disordered behaviors are a reparative function. Orzolek-Kronner (2002) suggests that these could serve as risk factors to aid in prediction of likelihood of developing an eating disorder.

Symbolic Interactionism

White, Martin, & Adamsons (2018) state that the symbolic interaction framework is an interconnectedness of personality, culture, and social behaviors and explains how symbols are shared between people and society. Further explained, they state that symbolic interactionism describes how meaning can be placed on different behaviors, actions, and symbols. Symbols are signs that are generally agreed upon. An example of this is the term "dad" signaling a specific person in one's life, and it is commonly acknowledged that a "dad" refers to a specific person for someone. The authors suggest that socialization creates the basis for which people acquire symbols, beliefs, and meaning, and individuals are inclined to create meanings for things to be able to understand the world around them. Additionally, they state that meanings and interactions can influence behavior and identity. Stryker & Burke (2000) explain that the sense of self is created by society and their roles and statuses. From societal influence, they state that meanings in different situations dictate the behaviors, and therefore the identity of a person.

The family environment is crucial for creating symbols and meaning. White, Martin, & Adamsons (2018) state that, especially with children, the meanings of most things are based on exposure from their parents or other family members. They further explain that creating and sustaining effective relationships are reliant on fostering these common meanings. Therefore, it can be said that behaviors and identity are reliant on the home environment.

Disordered eating behaviors can have different importance and meanings to certain individuals. Those with an eating disorder could place significant meaning on their bodies and can make their disorder eating behaviors part of their identity (Bulik & Kendler, 2000; Fox et al., 2011; King, 2022). Therefore, these meanings can influence their behavior, which could mean taking part in disordered eating habits to uphold the meanings and identity they have placed upon themselves. Identity and self-concepts are established through social interactions (LaRossa &

Reitzes, 1993; Zak-Hunter, 2012). Since most social interaction and meaning from social interaction are given to the child in the home environment, it can be suggested that different parenting practices could influence or dictate the meanings on certain behaviors that are linked to eating disorders. Davis et al. (2003) found that families who place significant meaning on body shape and weight can transmit their concerns down to their children, who, if they are vulnerable or prone to anxiety, can match those concerns and are then at a higher risk for developing an eating disorder.

Summary

Given previous associations mentioned between parenting style and childhood experiences and environment, as well as associations between cognitions and eating disorder pathology, it can be hypothesized that parenting practices may have an indirect relationship with eating disorder pathology. Though not causally linked, there may be a multi-step process from parenting practices to disordered eating behaviors and diagnoses in adolescents. Some researchers have suggested that disordered eating behaviors and the psychopathology within eating disorders are associated with negative aspects of the parenting environment. Cerniglia et al. (2017) analyzed family profiles and the psychopathology of youth with eating disorders through self-report measures to examine family functioning and how it relates to outcomes in disordered eating. They found that families high in rigidity were associated with higher psychopathological symptoms, indicating the importance of the family's influence (Cerniglia et al., 2017). On a similar note, Gonçalves et al. (2018) also researched family characteristics in relation to eating disorder behaviors and how childhood environments can influence eating disorder behaviors in the child's college years. They found that invalidating families were associated with disordered eating behaviors and body dissatisfaction (Gonçalves et al., 2018).

Invalidating families are those who invalidate the experiences of the child and ignore or punish communication of emotions, deeming them inappropriate (Gonçalves et al., 2018). They found that this association lead to difficulties in close relationships as well for the participants, as well as them being more likely to have maladaptive coping behaviors in response to negative emotions (Gonçalves et al., 2018).

Other researchers have found that there has not been a strong association between parenting and disordered eating, but does suggests that parenting style may be a risk factor. Zubatsky, Berge, & Neumark-Sztainer (2015) conducted research using longitudinal data to examine potential relationships between parenting style and disordered eating behaviors in adolescents. They found that parents with an authoritarian parenting style could have contributed as a risk factor for disordered eating behaviors, especially from the mother (Zubatsky, Berge, & Neumark-Sztainer, 2015). They also concluded that other parenting styles besides authoritative could inhibit their child's ability to self-regulate as they develop, with a notable example being regulation of eating behaviors (Zubatsky, Berge, & Neumark-Sztainer, 2015). Waller et al. (1990) suggested that abnormal family interactions of low adaptability and cohesion could be associated with anorexic and bulimic disorders and concluded that they perceived their family interactions as rigid and disengaged, but found no causal link and only showing indirect support.

Gaps in the literature

A critical review of the literature on the relationship between parenting and eating disorders shows that it is dated, in that many have not been updated in at least a decade to account for new information and theories. Relevant research on the target parenting practices in this study were related to psychosocial properties or other mental health conditions such as depression or anxiety (Cadman et al., 2022; Disjoin & McMahon, 1998; Jacobson & Crockett,

2000; Koome et al., 2012; Mattanah, 2001; Offer, 2013; Rask et al., 2003; Schultz-Krohn, 2004; Steinberg et al., 1998; Yu et al., 2006;). Even though there is relatively high comorbidity between depression and eating disorders and anxiety and eating disorders (Herpertz-Dahlmann, 2015), there is still not enough basis to extend the correlation from parenting practices to eating disorders.

In my exploration of research relating to the topic of this paper, there were a few limitations in regard to methodology. Firstly, the sample sizes were often small (Enten & Golan, 2009; Ringer & Crittenden, 2007), and those who did have a large number of participants were restricted to a small area (e.g. Zubatsky et al (2015) confined to only Minnesota), or were barely overlapping or just outside of the age range many consider to be adolescents (e.g. Gonçalves et al.'s (2020) sample ranged between 17-25, and Ringer and Crittenden's (2007) sample ranged between 18-45). However, most importantly, is that many of these studies did not compare to control groups of participants without eating disorders, and rather just examined differences within the sample (Cerniglia et al., (2017); Enten & Golan, 2009; Ringer & Crittenden, 2007). Given the gaps in research and methodology, there is an opportunity to explore the influence of various parenting practices as risk factors for eating disorders in adolescents. To address restrictions within the sample, the total sample used in this study is considered nationally representative, with 8984 participants across 147 sampling areas in every census region across the United States. Though they are not all diagnosed with eating disorders, looking at data of those who do through a nationally representative sample can aid in generalizability of potential patterns seen in this study. Though there is current research available in regard to parenting practices and mental health, there is a substantial gap of contemporary literature regarding specific types of parenting practices in relation to eating disorders specifically. This paper seeks

to begin filling those gaps and potentially give evidence towards new correlations that suggest parenting practices as risk factors for eating disorders. However, though this thesis is being done with current and future research in mind, this thesis involves a secondary data analysis and the dataset used is from the years 1997 and 2002. Limitations regarding using a dated sample to inquire on present-day issues is discussed later in this thesis.

Purpose

The importance of this study is that it begins to further analyze the relationship between parenting practices in adolescents and the subsequent prevalence of eating disorder in adolescents by looking at different parenting practices that could serve as risk factors. Prevalence of eating disorders have recently seen a significant increase (Herpertz-Dahlmann, 2015). Re-examining potential risk factors for eating disorders can open a new conversation in broadening the scope so that new preventative efforts can begin to develop for the new age of pathology. On a larger scale, the purpose of this study is to start to understand the interconnectedness between child experience and eating disorder pathology. Family environment and parenting practices play a critical role in a child's development. Researching how parenting practices can be potential risk factors for eating disorder diagnoses can pave the way for designing prevention and intervention methods for adolescents and young adults. The parenting practices examined in this paper are parenting style, family routines, and parental monitoring. This study aims to explore these parenting practices as risk factors for eating disorders, by looking at the presence, lack, or levels of parenting practices and whether they are present in this with and without eating disorders. The big picture on what this paper aims to contribute towards is decreasing the prevalence of eating disorders among adolescent populations. Part of how this can be achieved is by examining risk factors and targeting prevention strategies. This overarching goal of this paper is to focus on

parenting practices as a risk factor. Parenting practices and families in general are often used for intervention for eating disorders, with therapies such as family mealtime, so there could be benefits in examining parenting in the lens of prevention (Lock, 2002).

Research Question

Are some parenting practices risk factors for the prevalence of eating disorders in adolescents?

Hypotheses

I will explore three hypotheses in this study:

Parenting Style

H_1: Experiencing an authoritative parenting style will not be associated with having an eating disorder

Family Routine

H_2: Increased presence of family routines will not be associated with eating disorders.

Parental Monitoring

H_3: Those who have lower levels of parental monitoring will be associated with having an eating disorder.

Methodology

Participants and Procedures

This study will be using data from the National Longitudinal Survey (NLS) of Youth 1997 database's public sample, from their overall National Longitudinal Surveys program, through the Bureau of Labor Statistics of the U.S. Department of Labor. The initial survey in 1997 interviewed a nationally represented sample of almost nine thousand participants between the ages of 13 and 17 (N = 8,984), or those born between 1980 and 1984, with 6,748 respondents

being part of the cross-sectional sample, and 2,236 respondents being those designed to oversample Hispanic, Latino, and Black populations. (Bureau of Labor Statistics, 2019). The respondents were initially 13 to 17 years old as of December 1996, at the time of the initial data collection. There are a total of 19 interview rounds conducted from 1997 to 2019 (Bureau of Labor Statistics, 2019. The questions and results used in this study will be pulled from the 1997 and 2002 interviews, or rounds 1 and 6.

Regarding sample selection, the interviews screened over 75,000 households in 147 primary sampling areas (metropolitan areas, single counties, or groups of counties, none of which overlapped). The screening interviews gathered information to be able to identify household members eligible for the sample. The initial screening process generally looked for youth's age as eligibility criteria, and in certain areas, the youth's race or ethnicity. The first round was a simple screener given to an adult member of the household (the "household informant"), which identified potentially eligible members based on birth date. If eligible, the household informant would complete the extended screener, which then asked for gender, race and ethnicity, and the youth's year in school, if applicable. Then, the household informant would fill out a roster of occupants in the household and basic demographic questions, and the parent would fill out the Parent Questionnaire, which gathers general data on the parent. Once all were completed, the interviewers were able to administer the questionnaires. (Bureau of Labor Statistics, 2019).

Each round of interviews were completed through computer-assisted personal interview (CAPI) instruments, which were administered by an interviewer with a computer. The computer program led the respondent through an electronic questionnaire, directing to the next question based on the previous answer, and prevented the respondent from responding with invalid

selections. In-person interviews were the preferred method of data collection. (Bureau of Labor Statistics, 2019).

The data obtained for this study is part of the public sample of NLS97 data available through the Investigator program on the National Longitudinal Surveys website (https://nlsinfo.org/content/cohorts/nlsy97). The two main categories for variables in this study are parenting practices and eating disorder pathology. Parenting practices include variables such as parenting style, parental monitoring, and family routines. Instead of being restricted just from the four main parenting styles, this paper aims to incorporate more specific parenting practices that might not typically fall under those umbrellas. The second category is eating disorder diagnoses. The main outcome variable is whether the youth participants recorded having an eating disorder.

Sample Characteristics

The sample consists of 4599 girls and 4385 boys, ranging from twelve to eighteen years old (M = 14.31, SD = 1.48) at the time of the first round of questions in 1997. The participants are part of a nationally represented sample, with 8984 people across the country. In terms of the race of participants the largest amount was White (N = 5232; 58.2%), followed by Black (N = 2,388; 26.6%), Native American (N = 61; 0.7%), Asian or Pacific Islander (N = 160; 1.8%), and Other race, not listed (N = 1063, 11.8%). Within this sample, 37.4% (N = 3359) are from Southern states, followed by 22.8% (N = 2050) in North Central states, 22.2% (N = 1990) in Western states, and 17.6% (N = 1585) in Northeastern states. Further, 73.2% (N = 6574) live in urban areas, while 22.6% (N = 2030) live in rural areas, and the rest are unknown (N = 380, 4.2%). Within their households, when asked what their relationship was with the heads of their households, the three highest category of responses were that they live with both of their biological parents (N = 4395, 48.9%), followed by living with only their biological mother (N =

2531, 28.2%), living with two parents with one being their biological mother (N = 991, 11%). Regarding the size of the household, participants answered between a range of one to sixteen people, with an average of 4.55 members, with the largest response categories being four people (N = 2857, 31.8%), five people (N = 2163, 24.1%), and three people (N = 1605, 17.9%).

For those who selected "yes" to having an eating disorder "like anorexia or bulimia," there were 51 total respondents. They were mostly women (N = 46; 90.2%), with the majority being White (N = 341; 82%), followed by Other race (N = 4; 8%), then Black (N = 2; 4%), Native American (N = 2; 4%), and Asian or Pacific Islander (N = 1; 2%). See Tables 1 and 2 in the appendix for more information regarding demographic characteristics of both the original sample, as well as those who have eating disorders.

Measures

Demographics. Race, age, and sex of participants were considered. In the original sample, there are 8,984 total respondents, with an almost-even split between men (N = 4599; 51%) and women (N = 4,385; 49%). The question for participant race was a categorical variable, with choices including White, Black, Native American, Asian or Pacific Islander, and Other race, not listed. The question for age was a scale variable, with answers ranging from twelve to eighteen years of age, as they were the bounds the research team restricted the sample to (Bureau of Labor Statistics, 2019). See Tables 1 and 2 in the appendix for more information regarding demographic characteristics of both the original sample, as well as those who have eating disorders.

Index of Family Routines. Modified from the Family Routines Inventory, this index seeks to evaluate the amount of routine within a family through asking about dinnertime, housework, doing something fun as family, and doing something religious as a family. In total

there are four sub-questions for this index. Questions included, "*In a typical week, how many days from 0 to 7 do you eat dinner with your family? In a typical week, how many days from 0 to 7 does housework get done when it is supposed to, for example cleaning up after dinner, doing dishes, or taking out the trash? In a typical week, how many days from 0 to 7 do you do something fun as a family, such as play a game, go to a sporting event, go swimming, and so forth? In a typical week, how many days from 0 to 7 do you do something religious as a family, such as go to church, pray, or read the scriptures together?"*. Responses were measured on an 8-point Likert scale (0 = no days/week, 7 = all seven days). The index was created by summing the responses to all four items, indicating that a higher score was equivalent to more days with routine activities within a family. This index is a continuous variable (Moore et al., 1999).

Parental Monitoring. This scale measures how much a parent is monitoring their child through a youth report. The residential mother-directed scale ($\alpha_{mother} = 0.71$) and the residential father-directed scale ($\alpha_{father} = 0.81$) was created with four sub-questions and covered both residential and non-residential parents. The four items were, "*How much does he/she know about your close friends, that is, who they are? How much does he/she know about your close friends' parents, that is, who they are? How much does he/she know about who you are with when you are not at home? How much does he/she know about who your teachers are and what you are doing in school?* Each question was measured on a five-point scale of how much the parent knows about each topic, with 0 = knows nothing, and 4 = knows everything. The four responses were summed, creating the total score, with higher scores equating to greater monitoring. (Moore et al., 1999).

Parenting Style. This categorical measure places the parent of the respondent within four categories based on perceived parenting style. This scale was done twice for residential mother

and residential father. Though the description of the measure describes demandingness and responsiveness, the scale response categories are based on strictness (in place of demandingness), and supportiveness (in place of responsiveness). This scale examines the interactive effects of strictness and supportiveness within four parenting styles: uninvolved (low in strictness and supportiveness), authoritarian (high in strictness and low in supportiveness), permissive (low in strictness and high in supportiveness), and authoritative (high in strictness and high in supportiveness). (Moore et al., 1999).

Supportiveness was measured on a three-point scale, with 1 = very supportive and 3 = not very supportive, asking the participant, "*When you think about how s/he acts towards you, in general, would you say that s/he is very supportive, somewhat supportive, or not very supportive?".* Responses of "not very" and "somewhat" supportive were recoded to equal 0 and were considered "non-responsive," and "very" supportive was recoded to equal 1 and was considered "responsive". Strictness was measured on a two-point scale, with 1 = permissive and 2 = strict, asking participants, *"In general, would you say that s/he is permissive or strict about making sure you did what you were supposed to do?".* Responses of "strict" were recoded to equal 1 and were considered "demanding," while responses of "permissive" were recoded to equal 0 and were considered "non-demanding." Both questions, now formatted as two two-level variables, were combined to create the Parenting Style variable categories. Depending on the combined values of the two questions respondents gave, they were placed in one of four parenting style categories: category one is Uninvolved (strictness = 0; supportiveness = 0), category two is Permissive (strictness = 0; supportive = 0), three is Authoritarian (strictness = 1; supportiveness = 0), and four is Authoritative (strictness = 1; supportiveness = 1*)* (Moore et al., 1999).

Genetic condition, eating disorder. This measure consists of one dichotomous variable, asking whether the respondent has an eating disorder. First, they are asked "*Have you ever had an eating disorder, a learning or emotional problem or a mental condition that has limited your ability to attend school regularly, do regular schoolwork, or work at a job for pay?"* If they respond yes to this question, they are then prompted with a list of conditions, including a learning disability, an emotional or mental health problem, something else not specified, and the final option of, "*Eating disorder like anorexia or bulimia"*. (Moore et al., 1999).

Analytical Plan

The data was analyzed using R 4.3 and MPlus 8.7. R was used to prep the data and run descriptive statistics (means, standard deviations, frequencies, percentages, correlations) while Mplus was used to run all regression models. The eating disorder outcome variable was categorical with three categories. The three categories included1) the normative group (neither having an eating disorder nor mental health condition), 2) the mental health group (answering yes to the lead-in question of having a mental health condition but not selecting the eating disorder option), and 3) the eating disorder group (those who selected they had an eating disorder). Initial steps consisted of computing means and standard deviations for all continuous independent variables and reporting the frequency and percentage for all categorical independent variables for the entire sample. Following, the same descriptive statistics were computed for each of the three categories of the eating disorder outcome variable. Next, a series of multinomial logistic regression models were fit to the data to answer the research questions. A multinomial logistic regression was used because the dependent variable had three categories. The eating disorder group was used as the reference category in all multinomial logistic regression models because it was the main category of intertest.

In order to examine maternal and paternal variables together and separately, three multinomial logistic regression model were fit to the data. Model 1 (Maternal Model) included demographic variables (gender, race, and age), family routines, and all the maternal related variables of monitoring and parenting style. The second model (Paternal Model) included demographic variables (gender, race, and age), family routines, and paternal related variables of monitoring and parenting style. Finally, the third model (Full Model) is the full model which includes both maternal and paternal models. For all models, the reference category for gender is male, the reference category for race is White, the reference category for parenting style for both parents is authoritative, and the reference category for the dependent variable relating to eating behaviors is those with an eating disorder. The three models were split into two tables for ease of reading, with Table 3 showing the comparison of the normative category compared to the eating disorder category, and Table 4 showing the comparison of the mental health category compared to the eating disorder category.

All models were run using the robust maximum likelihood estimator (MLR) to handle potential non-normality in the data by estimating a scaling factor. Full Information Maximum Likelihood (FIML) was used to handle missing data, which is preferred over listwise deletion because it allows all individuals to contribute whatever available information they have towards the likelihood function without the need to remove them if they have any missing data.

Results

Descriptive Statistics

Descriptive statistics for the full sample can be found in Table 1 and by each of the three categories of the eating disorder outcomes variable in Table 2. Regarding the full sample, 51.2% of the sample were female (N = 4599) and 48.8% were male (N = 4385). The sample had the

highest percentage of White participants (N = 5232, 58.2%), followed by Black (N = 2388, 26.6%), Other race (N = 1063, 11.8%), Asian or Pacific Islander (N = 160, 1.8%), and Native American (N = 61, 0.7%). Average age of participants was 14.31 years old (SD = 1.48). Average level of family routines for the overall sample on a range of 0-28 was 15.04 (SD = 5.51). The average level of monitoring on a range of 0-16 was 10.25 (SD = 3.29) for the mother and 8.19 (SD = 4.0) for the father. For the mother's parenting style, 40.4% of participants reported an authoritative parenting style (N = 3626), followed by 33.4% permissive (N = 2999, 11.9% authoritarian (N = 1065), and 9.9% uninvolved (N = 890). For the father's parenting style, 27.9% of participants reported an authoritative parenting style (N = 27.9), followed by 20.4% permissive, (N = 1832), 14.0% Authoritarian (N = 1261), and 9.1% uninvolved (N = 817). Results for parenting style were comparable to and in the same order as other national samples in research, with all three categories of the dependent variable following the same order (Pong, Johnston, & Chen, 2010). Regarding the categories of the dependent variable, 7507 participants were in the normative group (83.6%), 329 participants were in the mental health group (3.7%), and 51 participants were in the eating disorder group (0.6%). The final 12.1% of the sample were "non-interview," meaning they were in the original round one of interviews but were not present for round six where the dependent variable's question comes from. Table 2 shows these descriptive statistics for each variable broken down by each category of the dependent variable.

Multinomial Logistic Regressions

Compared to males, females had lower odds of being in the normative (OR = 0.10, [0.04, 0.27], $p < .001$) and mental health category (OR = 0.13, [0.05, 0.33], $p < .001$) compared to the eating disorder category. Said differently, females have a higher odds of being in the eating disorder category than males. Further, compared to White, Black participants had a higher odds

of being in the normative (OR = 10.90, [2.51, 47.52], $p < .001$) and mental health (OR = 7.48, [1.67, 33.43], $p = .008$) categories compared to the eating disorder category (See Table 3 and 4).

Some trace effects (significant at the $p < 0.10$ level) were found that could be explored further. Those who were Native American had a lower odds of being in the normative (OR = 0.27, [0.06, 1.13], $p = 0.075$), and mental health (OR = 0.10, [0.01, 1.08], $p = 0.057$) categories compared to the eating disorder category. In model 1, the model including maternal variables, when compared to authoritative parenting, permissive parenting had a higher odds of being in the normative group (OR = 1.81, [0.92, 3.57], $p = 0.08$) compared to the eating disorder group. This finding was consistent in Model 2 as well, the model that included paternal variables, in that compared to authoritative parenting, permissive parenting had higher odds of being in the normative group (OR = 4.79, [0.74, 31.03], $p = 0.1$) than the eating disorder group. No other significant differences were found.

Discussion

The analyses did not show any significance between parenting practices in adolescence and an eating disorder diagnosis. The only significant results seen in the models were in relation to gender and race. Results showed that women had a higher odd in being in the eating disorder category than men. This is consistent with the literature, in that women have a higher incidence rate than men for being diagnosed with an eating disorder (Lewisohn et al., 2002; Woodside et al., 2001). Though, Lewisohn et al. (2002) noted in their study that compared to men, women were more likely to seek treatment for an eating disorder. Striegel-Moore et al. (2009) found significant gender differences in eating disorder symptoms, suggesting that symptom assessment should be analyzed further over a mixed gender sample. Given the suggested under-

representation and differences in symptoms, future studies could potentially lead to discovering different prevalence rates than previously reported.

Significant results also showed that Black participants were less likely to be in the eating disorder category than the normative category, compared to the White reference group. Zhang and Snowden (1999) found that African Americans had lower rates of Anorexia Nervosa compared to White participants. Also, Franko et al., (2007) found that African Americans showed a lower frequency of binge-related behaviors than White participants. Rodgers, Berry, and Franko (2018) stated that historically, eating disorder assessment were developed through a White female population, resulting in a lack of cultural sensitivity and applicability to other groups, though more recent research is examining the pertinence of existing criteria on ethnic minority groups. Common to the public, the demographic many think of as being most affected by eating disorders are white women, as part of the American culture and viewpoint of slenderness as well as them being the majority of clinical samples for eating disorders (Cachelin et al., 2000; Gordon, Perez, & Joiner, 2001). Given the disproportionality, the restriction of eating disorders to white women could contribute to underrepresentation, and lower amounts of those who are not white who seek treatment (Cachelin et al., 2001). Given the high priority of the study of health disparities between different races and cultural groups, future research should examine potential disparity in eating-disorder related literature (Groman & Ginsburg, 2004; Kilbourne et al., 2005).

Though not at the same significance level, one result to note is that with both mothers and fathers, those who exhibit a permissive parenting style are more likely to be in the normative category than the eating disorder category compared to the authoritative reference group. Both results fell into the $p < 0.1$ significance level. When thinking about the authoritative parenting

style versus the permissive parenting style, the key difference is that authoritative is high in both demandingness and responsiveness, and the permissive parenting style is low in demandingness and high in responsiveness (Baumrind, 1971). Perhaps the difference in demandingness between the two parenting styles could be what contributed to those with permissive parents being more likely to be in the normative category. Referring to Orzolek-Kronner's (2002) work, they found that adolescent females with eating disorders reported changes in proximity needs to the family since their clinical diagnosis. They further state that families claimed that they have gotten closer together since the onset of the disorder, and that a lot of these proximity behaviors are comparable to mother-infant or parent-toddler interactions, in which there is closer proximity from controlling food and watching over their adolescent. Though these behaviors are usually strictly connected to young children, Orzolek-Kronner (2002) posits that it can be possible that the adolescent having an eating disorder can be significant cause for these processes to reappear. In connection to parenting style, the increase of proximity and watchfulness can be more in line with the high responsiveness and over-indulgence of the permissive parenting style (Haycraft & Blissett, 2010). And since the return of all these behaviors are involved with the diagnosis and subsequent treatment and intervention phases of an eating disorder, it can be suggested that higher responsiveness could lead to remission or a cure, or in other words the return to the normative category.

Though there was slight significance with permissive parenting style in relation to placement in the normative category, there seems to be no outright conclusion that experiencing a permissive parenting style is best for prevention of eating disorders. Throughout research, studies have indicated that experiencing an authoritative parenting style is the most indicative of healthy eating patterns (Newman et al., 2008; Zubatsky, Berge, & Neumark-Sztainer, 2015).

Though the authoritative parenting style is considered optimal for children and adolescents, some studies have found benefits of the permissive parenting style. Berge et al. (2010) found that, along with authoritative, permissive parenting is good for predicting positive weight-related behaviors in adolescents. They suggested that the shared facets of warmth in both parenting styles are what contributed to health food intake. However, given the low power and significance within the eating disorder sample, sound conclusions should not be made from these results alone, but can perhaps be used as an avenue to explore further. Perhaps it could be the shared behaviors between permissive and authoritative parenting style are what brought upon the significance of permissive parenting and placement in the normative category.

Although there was no significance within the results on the association between parenting practices and being in the eating disorder category, it does not mean that we should ignore the potential relationship entirely. Other studies in the literature have found that different types of family functioning and exhibited parenting styles can be associated with eating disorder symptoms or pathology. Cerniglia et al. (2017) found that families that are high in rigidity and low adaptation are associated with increased psychopathological symptoms of eating disorders. Enten & Golan (2009) found that a perceived authoritarian parenting style of the father the was positively correlated with eating disorder inventory scores, and the inverse was found with perceptions of the father as being authoritative. Finally, Gonçalves et al. (2018) found that body dissatisfaction and disordered eating were higher in families that were invalidating of a child's emotions or experiences. Though no longer a universally acknowledged significance level, given the sample size in this study, the lower significance level may not hold much weight to the results, but it still lends a pattern that could be investigated further. Other studies about parenting or eating disorder disciplines have noted results with the same significance level (Cadman et al.,

2022; Davis et al., 2003). Because of the similarities to other papers, these results can be of note to examine in further research.

Relative to theory, the results are not fully in line with what can be hypothesized in attachment theory and symbolic interaction theory. Research within attachment theory that suggests anxious and insecure attachments are associated with eating disorder symptoms (Illing et al 2010; Ringer & Crittenden, 2006; Tasca et al., 2011). Bortz et al. (2019) suggested that there are conceptual overlaps between parenting style and attachment types, in that they both value warmth and security. They further suggest that warmth, parental involvement, and responsiveness was consistent with attachment security. Within parenting styles, high warmth and responsiveness are consistent with authoritative and permissive parenting styles (Baumrind, 1971). Given this overlap, significant rates of permissive and authoritative parenting styles in the normative category of the sample would be expected. There were no significant results regarding this relationship, though there were noteworthy results at the $p < 0.1$ significance level that those with permissive parenting styles were more likely to be in the normative category than eating disorder category. Thus, some results are partially applicable within attachment theory.

Further, research within symbolic interaction theory proposes that the family environment is crucial in creating meaning, behaviors, and identity in children (White, Martin, & Adamsons, 2018). Further, those with eating disorders place significant meaning on their disordered behaviors as well as make it part of their identity (Bulik & Kendler, 2000; Fox et al., 2011; King, 2022). Since many meanings and identity are created in the home, the home might be a source of identity, behaviors, and meaning in relation to eating disorders. Coupled with cognitive theory, dysfunctional attitudes and beliefs are a central risk factor in developing an eating disorder (Spangler, 2002). Given these suggestions, it would be expected that parenting

practices would have a significant impact as a risk factor for eating disorders in some way. In the results of this study, none of the parenting practices had a significant higher or lower odd of placing participants in the eating disorder or normative category, and are therefore, not compatible with theoretical research.

Limitations

There were many limitations regarding this study that provide areas for future research, mainly pertaining to the data and its associated question material. The most glaring issue was the size of the sample. Filtering the normative sample to those who selected having a mental health condition resulted in a sample of 382 participants. Of those 382, only 51 responded to having an eating disorder. Since this sample is so small, there is no basis for generalization of any of the results from the study. Though this does not make the results unimportant, it does lessen the impact of them. Further, data collection for the predictor variables was in 1997 and the outcome variables in 2002. Though the sample were 12-18 years old at baseline, the data is outdated by at least twenty years, which can heavily influence how applicable the results are to modern day issues, policy, and prevention strategies. Using dated questions to examine current relationships shows a disconnect between the problems the participants were facing back then, to what those with an eating disorder can be facing now. Additionally, the sample characteristics show demographic limitations. Within the eating disorder population, most respondents were White women, again aiding in the lack of generalizability.

The question material also came with its own limitations. Since this paper is a secondary data analysis, the material used to conduct analyses were pre-written by the NLS research teams and not catered to the subject of this study. Many of the predictor variables were youth reports, meaning the adolescent participants were the ones answering the questions. Because of their

young age, there is a chance that there are incorrect answers, falsified answers, or that they misunderstood the questions. Next, questions relating to parents only included residential mothers and fathers, so there is no inclusion of other guardians. Also, the penultimate question asking if participants have an eating disorder was vague in their wording. Further, it also listed Anorexia or Bulimia as examples, disregarding other eating disorders. Also, under-reporting of eating disorders is very common, as many who display disordered eating behaviors do not believe that there is anything wrong with them, leading to underreporting (Becker, Eddy, & Perloe, 2009; Schoen et al., 2012).

The wording of the questions used, and their limited quantities impacted the data collected for this study by limiting the possibility for thorough analyses. For example, the parenting style variable is based on only two questions given to the participants, one for demandingness and one for responsiveness, which were then used to categorize their parents. Not having enough detail within these questions can lead to misleading data since there were less comparison points. Like previously stated, the outcome variable for participants having an eating disorder was just a yes or no question if they were diagnosed at all, which completely negates different types of symptomology, other eating disorders besides the two examples given in the question, and potential disordered behaviors that did not necessarily lend to a diagnosis but are still maladaptive, or even those who have not yet been diagnosed.

Further limitations to take in consideration is different circumstances within the home environment that can influence the frequency of family routines or monitoring, such as the work schedule of the parents and the number of other children in the home that also need monitoring from the parents. So, lower levels may not necessarily be considered harmful, as the parents may be restricted by other factors such as their job or watching other siblings. Additionally, ordinal

positioning of the participant could affect parenting practices levels, as it is suggested that firstborn children experience different parenting practices than second-born and so forth (Keller & Zach, 2002). Along a similar route, another limitation in concern to parenting styles specifically is the possibility of the participant experiencing a mix of two different parenting styles from each parent, as mothers and fathers can have different relationships with their children (McKinney & Renk, 2008). Though the multinomial logistic regression had separate models for the mother and the father variables, there is still a chance that the environment created by combined parenting styles is undetectable or unmeasurable through the existing questions given.

Future Directions

In subsequent research, studies should use much larger and more diverse sample sizes to ensure reliability and replicability of findings. Given significant results in this study in relation to women having a higher odd of being in the eating disorder category, future studies could examine potential gender differences. Past research has found that eating disorder prevalence has significant gender differences, though there are also differences in the display and severity of different symptoms. Perhaps the disconnect of eating disorder symptoms could contribute to the gender differences seen in research. Further significant results in relation to Black participants having a higher odd of being in the normative category could also be further investigated. Given health disparities and potential lack of applicability of assessment and diagnostics across race and cultural groups, further studies could examine if these disparities of under-representation exist and to what extent.

Further research should delve into the topic of parenting styles and eating disorder diagnoses, but with the added comparison of a normative group rather than just within-sample

studies. Understanding how demandingness and responsiveness differs in parents of children who do and do not have eating disorders can lend important information for parenting prevention studies regarding strategies to decrease eating disorder prevalence.

If I were able to modify the questions used in this study, I would go a lot further in depth into each variable in order to obtain a comprehensive analysis. In terms of the three predictor variables examining parenting practices, using many more questions adds increased detail that could discover potential relationships that were previously missed. Especially when examining parental differences and how combinations of parenting styles and practices can affect adolescents, further questions about parental interaction, which parent the participant seeks for different things, or circumstances within the home would be useful in determining if there are potential confounding influences on parenting practices.

For the outcome variable, I would also add in extra questions in relation to eating disorders or perhaps use an eating disorder inventory questionnaire. Disordered eating behaviors and symptoms of eating disorders can be displayed across a continuum. Many who have eating disorders are diagnosed with an "eating disorder not otherwise specified" (or EDNOS), that often gets overlooked as they do not show all the criteria for a specific diagnosis, or they display some precursory symptoms that are still harmful and could evolve to more extremes if not addressed (Brooks et al., 2012; Patton, 1988). Given this, using an index to determine symptom presentation and severity could lend to more in-depth knowledge on more nuanced effects of parenting practices in relation to eating disorders. Since the parenting practices are studied within a scale, it is only fair that eating disorders should be analyzed on the same level. Future research should also examine eating disorders on a continuum rather than a set diagnosis, as recent

research has suggested that there could be a gap within that population based on varying symptomology (Becker, Eddy, & Perloe, 2009; Brooks et al., 2012).

Conclusion

In summary, prevalence of eating disorders has increased in recent years and is an important topic to study. Prevention practices are key to decreasing prevalence rates of the disorder, so it is important to examine potential risk factors to aid in prevention strategies. This paper aimed to investigate parenting practices in adolescence as a potential risk factor for eating disorders. Topics of parenting style, family routines, and parental monitoring were investigated on its importance as practices that could be influential to later eating disorder diagnoses. Through multinomial logistic regressions, there were no significant results found between parenting styles and eating disorder diagnosis. However, it was found that participants who were women were more likely to be in the eating disorder category, and Black participants were more likely to be in the normative category. Non-significant results were found for a potential of those who experienced a permissive parenting style being more likely to be in the normative category than eating disorder category. Further research should include normative groups and larger sample sizes of participants with an eating disorder to exhibit higher significance in results.

Appendix A

Table 1: Descriptives of all study variables

Variable	Mean (n)	SD (%)	Range
Gender			
Female	(4599)	(51.2%)	
Male	(4385)	(48.8%)	
Race			
White	(5232)	(58.2%)	
Black	(2388)	(26.6%)	
Native	(61)	(0.7%)	
Asian	(160)	(1.8%)	
Other	(1063)	(11.8%)	
Age	14.31	1.48	12-18
Family Routines	15.04	5.51	0-28
Mom Monitoring	10.25	3.29	0-16
Parenting Style Mom			
Authoritative	(3626)	(40.4%)	
Authoritarian	(1065)	(11.9%)	
Permissive	(2999)	(33.4%)	
Uninvolved	(890)	(9.9%)	
Dad Monitoring	8.19	4.0	0-16
Parenting Style Dad			
Authoritative	(2511)	(27.9%)	
Authoritarian	(1261)	(14.0%)	
Permissive	(1832)	(20.4%)	
Uninvolved	(817)	(9.1%)	
Categories of Dependent Variable			
Normative	(7507)	(83.6%)	
Mental Health	(329)	(3.7%)	
Eating Disorder	(51)	(0.6%)	

Table 2: Descriptives of Sample Categories within the Dependent Variable Relating to Eating Behaviors

	Normative			Mental Health			Eating Disorder		
Variables	**Mean (N)**	**SD (%)**	**Range**	**Mean (N)**	**SD (%)**	**Range**	**Mean (N)**	**SD (%)**	**Range**
Gender									
Female	(3677)	(49.0%)		(174)	(52.9%)		(46)	(90.2%)	
Male	(3830)	(51.0%)		(155)	(47.1%)		(5)	(9.8%)	
Race									
White	(4301)	(57.3%)		(214)	(65.0%)		(41)	(82%)	
Black	(2054)	(27.4%)		(72)	(21.9%)		(2)	(4%)	
Native American	(56)	(0.7%)		(1)	(0.3%)		(2)	(4%)	
Asian	(135)	(1.8%)		(5)	(1.5%)		(1)	(2%)	
Other Race	(899)	(12.0%)		(34)	(10.3%)		(4)	(8%)	
Age	14.25	1.47	12-18	14.3	1.49	12-18	14.1	1.58	12-18
Family Routines	15.0	5.45	0-28	14.62	6.50	0-28	14.0	6.32	0-28
Mom Monitoring	10.27	3.28	0-16	9.72	3.46	0-16	10.88	3.72	0-16
Mom Parenting Styles									
Authoritative	(3035)	(40.4%)		(128)	(38.9%)		(23)	(45.1%)	
Authoritarian	(885)	(11.8%)		(50)	(15.2%)		(8)	(15.7%)	
Permissive	(2528)	(33.7%)		(95)	(28.9%)		(12)	(23.5%)	
Uninvolved	(739)	(9.8%)		(40)	(12.2%)		(4)	(7.8%)	
Dad Monitoring	8.17	3.98	0-16	8.01	4.10	0-16	7.23	4.14	0-16
Dad Parenting Styles									
Authoritative	(2110)	(28.1%)		81	(24.6%)		(14)	(27.5%)	
Authoritarian	(1050)	(14.0%)		52	(15.8%)		(10)	(19.6%)	
Permissive	(1540)	(20.5%)		53	(16.1%)		(3)	(5.9%)	
Uninvolved	(699)	(9.3%)		32	(9.7%)		(6)	(11.8%)	

Table 3: Multinomial Logistic Regression for **Normative** sample compared to Eating Disorder sample

	Model 1			Model 2		
Variables	**Estimate (SE)**	**OR**	**95% CI**	**Estimate (SE)**	**OR**	**95% CI**
Gender	-2.25*** (0.47)	0.11	[0.04, 0.26]	-2.27*** (0.48)	0.10	[0.04, -.26]
Black	2.35** (0.76)	10.51	[2.35, 46.97]	2.39*** (0.74)	10.94	[2.55, 46.94]
Native American	-1.25† (0.72)	0.29	[0.07, 1.18]	-1.25 (0.74)	0.29	[0.07, 1.23]
Asian/Pacific Islander	0.13 (1.01)	1.14	[0.16, 8.17]	0.16 (1.01)	1.17	[0.16, 8.46]
Other race	0.80 (0.53)	2.24	[0.79, 6.30]	0.86† (0.53)	2.37	[0.85, 6.66]
Age	0.05 (0.11)	1.05	[0.85, 1.29]	0.05 (0.11)	1.05	[0.85, 1.30]
Family Routine	0.04 (0.05)	1.05	[0.96, 1.14]	0.02 (0.05)	1.02	[0.94, 1.11]
Mom Monitoring	-0.03 (0.09)	0.98	[0.83, 1.15]			
Mom Uninvolved	0.57 (0.59)	1.78	[0.56, 5.59]			
Mom Permissive	0.59† (0.35)	1.81	[0.92, 3.57]			
Mom Authoritarian	-0.05 (0.46)	0.96	[0.39, 2.33]			
Dad Monitoring				-0.01 (0.07)	1.00	[0.87, 1.15]
Dad Uninvolved				-0.19 (0.54)	0.82	[0.29, 2.36]
Dad Permissive				1.57† (0.95)	4.79	[0.74, 31.03]
Dad authoritarian				-0.21 (0.47)	0.81	[0.32, 20.5]

Note: Reference = Male for Gender, White for race.
$^{\dagger}p < .10$, $*p < .05$, $**p < .01$, $***p < .001$

Table 3 Continued

	Model 3		
Variables	**Estimate (SE)**	**OR**	**95% CI**
Gender	-2.22 (0.46)***	0.10	[0.04, 0.27]
Black	2.39 (0.75)***	10.9	[2.51, 47.62]
Native American	-1.31† (0.74)	0.27	[0.06, 1.13]
Asian/Pacific Islander	0.07 (1.00)	1.07	[0.15, 7.68]
Other race	0.80 (0.52)	2.23	[0.80, 6.21]
Age	0.05 (0.11)	1.05	[0.85, 1.29]
Family Routine	0.03 (0.04)	1.03	[0.95, 1.13]
Mom Monitoring	-0.06 (0.13)	0.94	[0.73, 1.22]
Mom Uninvolved	0.89 (0.66)	2.43	[0.67, 8.82]
Mom Permissive	0.41 (0.44)	1.51	[0.64, 3.53]
Mom Authoritarian	0.22 (0.48)	1.25	[0.49, 3.16]
Dad Monitoring	0.01 (0.10)	1.01	[0.82, 1.24]
Dad Uninvolved	-0.76 (0.58)	0.47	[0.15, 1.46]
Dad Permissive	-0.87 (0.81)	2.38	[0.49, 11.59]
Dad authoritarian	-0.53 (0.52)	0.59	[0.21, 1.63]

Note: Reference = Male for Gender, White for race.
$^{\dagger}p < .10$, $*p < .05$, $**p < .01$, $***p < .001$

Table 4: Multinomial Logistic Regression for **Mental Health** sample compared to Eating Disorder sample

	Model 1			Model 2		
Variables	Estimate (SE)	OR	95% CI	Estimate (SE)	OR	95% CI
Gender	-2.08*** (0.48)	0.13	[0.05, 0.32]	-2.12*** (0.49)	0.12	[0.05, 0.32]
Black	1.95** (0.78)	7.04	[1.54, 32.19]	2.03*** (0.76)	7.63	[1.73, 33.58]
Native American	-2.27† (1.23)	0.20	[0.01, 1,14]	-2.26† (1.23)	0.10	[0.01, 1.15]
Asian/Pacific Islander	-0.25 (1.1)	0.78	[0.09, 6.70]	-0.12 (1.10)	0.88	[0.10, 7.60]
Other race	0.50 (0.89)	1.64	[0.55, 4.91]	0.57 (0.56)	1.78	[0.60, 5.30]
Age	0.06 (0.11)	1.07	[0.86, 1.33]	0.07 (0.11)	1.07	[0.85, 1.35]
Family Routine	0.04 (0.05)	1.04	[0.95, 1.14]	0.01 (0.05)	1.01	[0.92, 1.11]
Mom Monitoring	-0.07 (0.09)	0.93	[0.78, 1.11]			
Mom Uninvolved	0.62 (0.62)	1.87	[0.56, 6.25]			
Mom Permissive	0.43 (0.37)	1.54	[0.74, 3.18]			
Mom Authoritarian	0.10 (0.49)	1.11	[0.43, 2.88]			
Dad Monitoring				0.01 (0.08)	1.01	[0.87, 1.17]
Dad Uninvolved				-0.04 (0.59)	0.96	[0.30. 3.04]
Dad Permissive				1.43 (0.97)	4.16	[0.62, 29.93]
Dad authoritarian				0.02 (0.52)	1.02	[0.37, 2.80]

Note: Reference = Male for Gender, White for race.
†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

Table 4 Continued

	Model 3		
Variables	**Estimate (SE)**	**OR**	**95% CI**
Gender	-2.03*** (0.47)	0.13	[0.05, 0.33]
Black	2.01** (0.76)	7.48	[1.67, 33.43]
Native American	-2.32† (1.22)	0.10	[0.01, 1.08]
Asian/Pacific Islander	-0.30 (1.10)	0.74	[0.09, 6.41]
Other race	0.50 (0.55)	1.64	[0.56, 4.87]
Age	0.07 (0.12)	1.07	[0.85, 1.34]
Family Routine	0.03 (0.05)	1.03	[0.94, 1.13]
Mom Monitoring	-0.12 (0.14)	0.89	[0.68, 1.16]
Mom Uninvolved	0.93 (0.69)	2.53	[0.65, 9.80]
Mom Permissive	0.26 (0.46)	1.30	[0.53, 3.20]
Mom Authoritarian	0.33 (0.51)	1.39	[0.51, 3.77]
Dad Monitoring	0.04 (0.11)	1.04	[0.84, 1.29]
Dad Uninvolved	-0.62 (0.64)	0.54	[0.15, 1.87]
Dad Permissive	0.88 (0.83)	2.41	[0.47, 12.27]
Dad authoritarian	-0.36 (0.56)	0.70	[0.23, 2.11]

Note: Reference = Male for Gender, White for race.
†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

Variable List

R05363.00 [KEY!SEX] **Survey Year: 1997**
PRIMARY VARIABLE

KEY!SEX, RS GENDER (SYMBOL)

COMMENT: Gender of Youth

Response	N
(1) Male	4599
(2) Female	4385
(0) No Information	0

Total: 8984

Refusal (-1)	0
Don't Know (-2)	0
Valid Skip (-4)	0
Non-Interview (-5)	0

Min: 1
Max: 2
Mean: 1.49

R05366.00 [KEY!AGE] **Survey Year: 1997**
PRIMARY VARIABLE

KEY!AGE, RS CURRENT AGE (SYMBOL)

COMMENT: Youth's current age

Response	N
0 TO 11: Less than 12	0
12	1231
13	1744
14	1859
15	1889
16	1718
17	531
18	12
19 TO 999: Greater than 18	0
Total:	8984

Refusal (-1)	0
Don't Know (-2)	0
Valid Skip (-4)	0
Non-Interview (-5)	0

Min: 12
Max: 18
Mean: 14.31

R05387.00 [KEY!RACE] **Survey Year: 1997**
SECONDARY VARIABLE

KEY!RACE, RACE OF R (SYMBOL)

COMMENT: KEY RACE

Response	N
(1) White	5232
(2) Black or African American	2388
(3) American Indian, Eskimo, or Aleut	61
(4) Asian or Pacific Islander	160
(5) Something else? (SPECIFY)	1063
(0) No information	0
Total:	8904

Refusal (-1)	17
Don't Know (-2)	63
Valid Skip (-4)	0
Non-Interview (-5)	0

Min: 1
Max: 5

R12358.00 [CV_SAMPLE_TYPE] Survey Year: 1997
PRIMARY VARIABLE

SAMPLE TYPE. CROSS-SECTIONAL OR OVERSAMPLE

Sample type: Is the respondent a member of the cross-sectional sample or the oversample?

Response	N
(1) Cross-sectional	6748
(0) Oversample	2236
Total:	8984

Refusal (-1)	0
Don't Know (-2)	0
Valid Skip (-4)	0
Non-Interview (-5)	0

Min: 0
Max: 1

R14856.00 [FP_YHROUTIN] Survey Year: 1997
PRIMARY VARIABLE

INDEX OF FAMILY ROUTINES, YOUTH REPORT

Youth Report, Index of Family Routines. Scores range from 0 to 28; higher scores indicate more days spent in routine activities with the family.

Response	N
0 TO 4	221
5 TO 8	406
9 TO 12	900
13 TO 16	1703
17 TO 20	1321
21 TO 24	603
25 TO 28	218
Total:	5372

Refusal (-1)	0
Don't Know (-2)	0
Valid Skip (-4)	3612
Non-Interview (-5)	0

Min: 0
Max: 28
Mean: 15.04

Items and Response Categories:
1. In a typical week, how many days from 0 to 7 do you eat dinner with your family?
2. In a typical week, how many days from 0 to 7 does housework get done when it is supposed to, for example cleaning up after dinner, doing dishes, or taking out the trash?
3. In a typical week, how many days from 0 to 7 do you do something fun as a family, such as play a game, go to a sporting event, go swimming, and so forth?
4. In a typical week, how many days from 0 to 7 do you do something religious as a family, such as go to church, pray, or read the scriptures together?

Index Creation
0 = no days/week, 7 = all seven days
The index is created by summing the values from all four questions.

R14857.00 [FP_YMMONIT] Survey Year: 1997
PRIMARY VARIABLE

DEGREE OF PARENTAL MONITORING BY RESIDENTIAL MOTHER, YOUTH REPORT

Youth Report, Degree of Parental Monitoring by Residential Mother. Scores range from 0 to 16; higher scores indicate greater parental monitoring.

Response	N
0 TO	4326
5 TO 8	1125
9 TO 12	2374
13 TO 16	1390
Total:	5215

Refusal (-1)	0
Don't Know (-2)	0
Valid Skip (-4)	3769
Non-Interview (-5)	0

Min: 0
Max: 16
Mean: 10.25

Item and Response Categories - used for questions related to residential and non-residential mother and father.

1. How much does he/she know about your close friends, that is, who they are?
2. How much does he/she know about your close friends' parents, that is, who they are?
3. How much does he/she know about who you are with when you are not at home?
4. How much does he/he know about who your teachers are and what you are doing in school?

Scale creation
Measured on 5-point scale, with 0 = knows nothing, to 4 = knows everything
Scores for the four items were summed, creating an overall parental monitoring score.

R14858.00 [FP_YFMONIT] Survey Year: 1997
PRIMARY VARIABLE

DEGREE OF PARENTAL MONITORING BY RESIDENTIAL FATHER, YOUTH REPORT

Youth Report, Degree of Parental Monitoring by Residential Father. Scores range from 0 to 16; higher scores indicate greater parental monitoring.

Response	N
0 TO 4	827
5 TO 8	1184
9 TO 12	1331
13 TO 16	617
Total:	3959

Refusal (-1)	0
Don't Know (-2)	0
Valid Skip (-4)	5025
Non-Interview (-5)	0

Min: 0
Max: 16
Mean: 8.19

Item and Response Categories - used for questions related to residential and non-residential mother and father.

1. How much does he/she know about your close friends, that is, who they are?
2. How much does he/she know about your close friends' parents, that is, who they are?
3. How much does he/she know about who you are with when you are not at home?
4. How much does he/he know about who your teachers are and what you are doing in school?

Scale creation
Measured on 5-point scale, with 0 = knows nothing, to 4 = knows everything
Scores for the four items were summed, creating an overall parental monitoring score.

R14865.00 [FP_YMPSTYL] Survey Year: 1997
PRIMARY VARIABLE

RESIDENTIAL MOTHER'S PARENTING STYLE, YOUTH REPORT

Youth Report, Residential Mother's Parenting Style.

Response	N
(1) Uninvolved	890
(2) Permissive	2999
(3) Authoritarian	1065
(4) Authoritative	3626
Total:	8580

Refusal (-1)	0
Don't Know (-2)	0
Valid Skip (-4)	404
Non-Interview (-5)	0

Min: 1
Max: 4

Items and Response Categories

1. When you think about how s/he acts towards you, in general, would you say that s/he is very supportive, somewhat supportive, or not very supportive?
2. In general, would you say that s/he is permissive or stoic about making sure you did what you were supposed to do?

Question 1 was on a 3-point scale, with 1 = very supportive and 3 = not very supportive
Question 2 was on a 2-point scale, with 1 = permissive, and 2 = strict

Scale creation

- "Not very supportive" or somewhat supportive" were recoded to = 0, and "very supportive" were recoded to = 1
- "Strict" was recoded to = 1 and "permissive" were recoded to = 0
- Now being two two-level variables - they were combined to produce the Parenting Style variable.
    - Uninvolved (permissive & not very or somewhat supportive),
    - Authoritarian (strict & not very or somewhat supportive),
    - Permissive (permissive & very supportive), and
    - Authoritative (strict & very supportive)

R14866.00 [FP_YFPSTYL] Survey Year: 1997
PRIMARY VARIABLE

RESIDENTIAL FATHER'S PARENTING STYLE, YOUTH REPORT

Youth Report, Residential Father's Parenting Style.

Response	N
(1) Uninvolved	817
(2) Permissive	1832
(3) Authoritarian	1261
(4) Authoritative	2511
Total:	6421

Refusal (-1)	0
Don't Know (-2)	0
Valid Skip (-4)	2563
Non-Interview (-5)	0

Min: 1
Max: 4

Items and Response Categories

1. When you think about how s/he acts towards you, in general, would you say that s/he is very supportive, somewhat supportive, or not very supportive?
2. In general, would you say that s/he is permissive or stoic about making sure you did what you were supposed to do?

Question 1 was on a 3-point scale, with 1 = very supportive and 3 = not very supportive
Question 2 was on a 2-point scale, with 1 = permissive, and 2 = strict

Scale creation

- "Not very supportive" or somewhat supportive" were recoded to = 0, and "very supportive" were recoded to = 1
- "Strict" was recoded to = 1 and "permissive" were recoded to = 0
- Now being two two-level variables - they were combined to produce the Parenting Style variable.
    - Uninvolved (permissive & not very or somewhat supportive),
    - Authoritarian (strict & not very or somewhat supportive),
    - Permissive (permissive & very supportive), and
    - Authoritative (strict & very supportive)

S12259.00 [YHEA-1010] **Survey Year: 2002**
PRIMARY VARIABLE

EVER HAVE EAT DISORD/MENTAL/EMOTIONAL PROB THAT LIMITED REGULAR ACTIVITIES

Have you ever had an eating disorder, a learning or emotional problem or a mental condition that has limited your ability to attend school regularly, do regular school work, or work at a job for pay?

Response	N
(1) YES (Go To S12260.00)	382
(0) NO	7507
Total:	7889

Refusal (-1)	4
Don't Know (-2)	3
Valid Skip (-4)	0
Non-Interview (-5)	1088

Min: 0
Max: 1

S12260.02 [YHEA-1020~000003] **Survey Year: 2002**
PRIMARY VARIABLE
Lead In: S12260.01[Default]

GENETIC CONDITION: EATING DISORDER

What (is/are) the condition(s)?
UNIVERSE: R has had a learning disability/eating disorder/mental/emotional prob

Response Choice: "Eating disorder like anorexia or bulimia"

Response	N
(1) SELECTED	51
(0) NOT SELECTED	329
Total:	380

Refusal (-1)	0
Don't Know (-2)	2
Valid Skip (-4)	7514
Non-Interview (-5)	1088

Min: 0
Max: 1

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596.

Baumrind, D. (1971). Current patterns of parental authority. *Developmental psychology*, *4*(1p2), 1.

Becker, A. E., Eddy, K. T., & Perloe, A. (2009). Clarifying criteria for cognitive signs and symptoms for eating disorders in DSM-V. *International Journal of Eating Disorders*, *42*(7), 611-619.

Berge, J. M., Wall, M., Loth, K., & Neumark-Sztainer, D. (2010). Parenting style as a predictor of adolescent weight and weight-related behaviors. *Journal of Adolescent Health*, *46*(4), 331-338.

Bortz, P., Berrigan, M., VanBergen, A., & Gavazzi, S. M. (2019). Family systems thinking as a guide for theory integration: Conceptual overlaps of differentiation, attachment, parenting style, and identity development in families with adolescents. *Journal of Family Theory & Review*, *11*(4), 544-560.

Boss, P., Doherty, W. J., LaRossa, R., Schumm, W. R., & Steinmetz, S. K. (Eds.). (1993). *Sourcebook of family theories and methods: A contextual approach*. Springer Science & Business Media.

Bowlby, J. (1958). The nature of the child's tie to his mother. I PMD Buckley (Red.). *Essential papers on object relations*.

Brooks, S. J., Rask-Andersen, M., Benedict, C., & Schiöth, H. B. (2012). A debate on current eating disorder diagnoses in light of neurobiological findings: is it time for a spectrum model?. *BMC psychiatry*, *12*, 1-11.

Bühren, K., Schwarte, R., Fluck, F., Timmesfeld, N., Krei, M., Egberts, K., ... & Herpertz-Dahlmann, B. (2014). Comorbid psychiatric disorders in female adolescents with first-onset anorexia nervosa. *European Eating Disorders Review*, *22*(1), 39-44.

Bulik, C. M., & Kendler, K. S. (2000). "I Am What I (Don't) Eat": establishing an identity independent of an eating disorder. *American Journal of Psychiatry*, *157*(11), 1755-1760.

Bureau of Labor Statistics, U.S. Department of Labor. National Longitudinal Survey of Youth 1997 cohort, 1997-2017 (rounds 1-18). Produced and distributed by the Center for Human Resource Research (CHRR), The Ohio State University. Columbus, OH: 2019.

Cachelin, F. M., Rebeck, R., Veisel, C., & Striegel-Moore, R. H. (2001). Barriers to treatment for eating disorders among ethnically diverse women. *International Journal of Eating Disorders*, *30*(3), 269-278.

Cadman, T., Paul, E., Culpin, I., Sallis, H., Bould, H., & Pearson, R. (2022). Parental monitoring longitudinally associates with reduced risk of adolescent mental health problems. *Journal of Affective Disorders Reports, 10*, 100420.

Cerniglia, L., Cimino, S., Tafa, M., Marzilli, E., Ballarotto, G., & Bracaglia, F. (2017). Family profiles in eating disorders: family functioning and psychopathology. *Psychology research and behavior management, 10*, 305.

Cooper, M. J., Wells, A., & Todd, G. (2004). A cognitive model of bulimia nervosa. *British Journal of Clinical Psychology*, *43*(1), 1-16.

Cummings, E. M., Davies, P. T., & Campbell, S. B. (2000). Developmental Psychopathology and Family Process. New York, NY: The Guilford Press.

Davis, C., Shuster, B., Blackmore, E., & Fox, J. (2004). Looking good—Family focus on appearance and the risk for eating disorders. *International Journal of Eating Disorders*, *35*(2), 136-144.

Davison, T. E., & McCabe, M. P. (2006). Adolescent body image and psychosocial functioning. *The Journal of social psychology*, *146*(1), 15-30.

Dishion, T. J., & McMahon, R. J. (1998). Parental monitoring and the prevention of child and adolescent problem behavior: A conceptual and empirical formulation. *Clinical child and family psychology review*, *1*, 61-75.

Enten, R. S., & Golan, M. (2009). Parenting styles and eating disorder pathology. *Appetite*, *52*(3), 784-787.

Evans, J., & Rodger, S. (2008). Mealtimes and bedtimes: Windows to family routines and rituals. *Journal of Occupational Science*, *15*(2), 98-104.

Fairburn, C.G., Cooper, Z., & Cooper, P.J. (1986) The clinical features and maintenance of bulimia nervosa. In K.D. Brownell and J.P. Foreyt (Eds.), Physiology, psychology and treatment of the eating disorders. New York: Basic Books.

Fox, A. P., Larkin, M., & Leung, N. (2011). The personal meaning of eating disorder symptoms: An interpretative phenomenological analysis. *Journal of Health Psychology*, *16*(1), 116-125.

Franko, D. L., Becker, A. E., Thomas, J. J., & Herzog, D. B. (2007). Cross-ethnic differences in eating disorder symptoms and related distress. *International Journal of Eating Disorders*, *40*(2), 156-164.

Garner, D. M., & Bemis, K. M. (1982). A cognitive-behavioral approach to anorexia nervosa. *Cognitive therapy and research*, *6*, 123-150.

Golan, M., & Crow, S. (2004). Parents are key players in the prevention and treatment of weight-related problems. *Nutrition reviews*, *62*(1), 39-50.

Gonçalves, S., Moreira, C., Gonçalves, M., Vieira, A. I., & Machado, B. C. (2020). The role of the perception of family environment in relation to body dissatisfaction, disordered eating and difficulties in close relationships. *Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity*, *25*(1), 205-213.

Gordon, K. H., Perez, M., & Joiner Jr, T. E. (2002). The impact of racial stereotypes on eating disorder recognition. *International Journal of Eating Disorders*, *32*(2), 219-224.

Groman, R., & Ginsburg, J. (2004). Racial and ethnic disparities in health care: a position paper of the American College of Physicians. *Annals of Internal Medicine*, *141*(3), 226.

Haycraft, E., & Blissett, J. (2010). Eating disorder symptoms and parenting styles. *Appetite*, *54*(1), 221-224.

Herpertz-Dahlmann, B. (2015). Adolescent eating disorders: update on definitions, symptomatology, epidemiology, and comorbidity. *Child and Adolescent Psychiatric Clinics*, *24*(1), 177-196.

Hoek, H. W., & Van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. *International Journal of eating disorders*, *34*(4), 383-396.

Hughes, S. O., Power, T. G., Fisher, J. O., Mueller, S., & Nicklas, T. A. (2005). Revisiting a neglected construct: parenting styles in a child-feeding context. *Appetite*, *44*(1), 83-92.

Illing, V., Tasca, G. A., Balfour, L., & Bissada, H. (2010). Attachment insecurity predicts eating disorder symptoms and treatment outcomes in a clinical sample of women. Journal of Nervous and Mental Disease, 198, 653–659.

Jacobson, K. C., & Crockett, L. J. (2000). Parental monitoring and adolescent adjustment: An ecological perspective. *Journal of research on adolescence*, *10*(1), 65-97.

Keller, H., & Zach, U. (2002). Gender and birth order as determinants of parental behaviour. *International Journal of Behavioral Development*, *26*(2), 177-184.

Kilbourne, A. M., Switzer, G., Hyman, K., Crowley-Matoka, M., & Fine, M. J. (2006). Advancing health disparities research within the health care system: a conceptual framework. *American journal of public health*, *96*(12), 2113-2121.

King, A. A. (2022). *Therapists' Use and Management of Eating Disorder Lived Experience in the Treatment of Clients with Eating Disorders* (Doctoral dissertation, Virginia Tech).

Koome, F., Hocking, C., & Sutton, D. (2012). Why routines matter: The nature and meaning of family routines in the context of adolescent mental illness. *Journal of Occupational Science*, *19*(4), 312-325.

Kuppens, S., & Ceulemans, E. (2019). Parenting styles: A closer look at a well-known concept. *Journal of child and family studies*, *28*(1), 168-181.

Lewinsohn, P. M., Seeley, J. R., Moerk, K. C., & Striegel-Moore, R. H. (2002). Gender differences in eating disorder symptoms in young adults. *International Journal of Eating Disorders*, *32*(4), 426-440.

Lock, J. (2002). Treating adolescents with eating disorders in the family context: Empirical and theoretical considerations. *Child and Adolescent Psychiatric Clinics*, *11*(2), 331-342.

MacDonald, K. (1992). Warmth as a developmental construct: An evolutionary analysis. *Child development*, *63*(4), 753-773.

McKinney, C., & Renk, K. (2008). Differential parenting between mothers and fathers: Implications for late adolescents. *Journal of family Issues*, *29*(6), 806-827.

Micali, N., Hagberg, K. W., Petersen, I., & Treasure, J. L. (2013). The incidence of eating disorders in the UK in 2000–2009: findings from the General Practice Research Database. *BMJ open*, *3*(5), e002646.

Moore, K. A., McGroder, S., Hair, E. C., & Gunnoe, M. (1999). Appendix 9: Family process and adolescent outcome measures. *Washington, DC: Bureau of Labor Statistics*.

Newman, K., Harrison, L., Dashiff, C., & Davies, S. (2008). Relationships between parenting styles and risk behaviors in adolescent health: an integrative literature review. *Revista latino-americana de enfermagem*, *16*, 142-150.

Norris, M. L., Apsimon, M., Harrison, M., Obeid, N., Buchholz, A., Henderson, K. A., & Spettigue, W. (2013). An examination of medical and psychological morbidity in adolescent males with eating disorders. In *Current findings on males with eating disorders* (pp. 124-134). Routledge.

Offer, S. (2013). Family time activities and adolescents' emotional well-being. *Journal of Marriage and Family*, *75*(1), 26-41.

Orzolek-Kronner, C. (2002). The effect of attachment theory in the development of eating disorders: can symptoms be proximity-seeking?. *Child and adolescent social work journal*, *19*, 421-435.

Patton, G. C. (1988). The spectrum of eating disorder in adolescence. *Journal of Psychosomatic Research*, *32*(6), 579-584.

Pong, S. L., Johnston, J., & Chen, V. (2010). Authoritarian parenting and Asian adolescent school performance: Insights from the US and Taiwan. *International journal of behavioral development*, *34*(1), 62-72.

Rask, K., Åstedt-Kurki, P., Paavilainen, E., & Laippala, P. (2003). Adolescent subjective well-being and family dynamics. *Scandinavian journal of caring sciences*, *17*(2), 129-138.

Ringer, F., & Crittenden, P. M. (2007). Eating disorders and attachment: The effects of hidden family processes on eating disorders. *European Eating Disorders Review: The Professional Journal of the Eating Disorders Association*, *15*(2), 119-130.

Rodgers, R. F., Berry, R., & Franko, D. L. (2018). Eating disorders in ethnic minorities: An update. *Current psychiatry reports*, *20*, 1-11.

Salbach-Andrae, H., Lenz, K., Simmendinger, N., Klinkowski, N., Lehmkuhl, U., & Pfeiffer, E. (2008). Psychiatric comorbidities among female adolescents with anorexia nervosa. *Child psychiatry and human development*, *39*, 261-272.

Schmidt, U. L. R. I. K. E. (2002). Risk factors for eating disorders. *Eating disorders and obesity: A comprehensive handbook*, *2*, 247-250.

Schoen, E. G., Lee, S., Skow, C., Greenberg, S. T., Bell, A. S., Wiese, J. E., & Martens, J. K. (2012). A retrospective look at the internal help-seeking process in young women with eating disorders. *Eating disorders*, *20*(1), 14-30.

Schultz-Krohn, W. (2004). The meaning of family routines in a homeless shelter. *The American journal of occupational therapy*, *58*(5), 531-542.

Smink, F. R., Van Hoeken, D., & Hoek, H. W. (2012). Epidemiology of eating disorders: incidence, prevalence and mortality rates. *Current psychiatry reports*, *14*(4), 406-414.

Spangler, D. L. (2002). Testing the cognitive model of eating disorders: The role of dysfunctional beliefs about appearance. *Behavior Therapy*, *33*(1), 87-105.

Steinberg, L., Elmen, J. D., & Mounts, N. S. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. *Child development*, 1424-1436.

Striegel-Moore, R. H., Rosselli, F., Perrin, N., DeBar, L., Wilson, G. T., May, A., & Kraemer, H. C. (2009). Gender difference in the prevalence of eating disorder symptoms. *International Journal of Eating Disorders*, *42*(5), 471-474.

Stryker, S., & Burke, P. (2000). The past, present and future of an identity theory. Social Psychology Quarterly, 63, 284–297.

Swanson, S. A., Crow, S. J., Le Grange, D., Swendsen, J., & Merikangas, K. R. (2011). Prevalence and correlates of eating disorders in adolescents: Results from the national comorbidity survey replication adolescent supplement. *Archives of general psychiatry*, *68*(7), 714-723.

Tasca, G. A., Ritchie, K., & Balfour, L. (2011). Implications of attachment theory and research for the assessment and treatment of eating disorders. *Psychotherapy*, *48*(3), 249.

Waller, G., Slade, P., & Calam, R. (1990). Family adaptability and cohesion: Relation to eating attitudes and disorders. *International Journal of Eating Disorders*, *9*(2), 225-228.

White, J. M., Martin, T. F., & Adamsons, K. (2018). *Family theories: An introduction*. Sage Publications.

Williamson, D. A., White, M. A., York-Crowe, E., & Stewart, T. M. (2004). Cognitive-behavioral theories of eating disorders. *Behavior modification*, *28*(6), 711-738.

Woodside, D. B., Garfinkel, P. E., Lin, E., Goering, P., Kaplan, A. S., Goldbloom, D. S., & Kennedy, S. H. (2001). Comparisons of men with full or partial eating disorders, men without eating disorders, and women with eating disorders in the community. *American Journal of Psychiatry*, *158*(4), 570-574.

Yu, S., Clemens, R., Yang, H., Li, X., Stanton, B., Deveaux, L., ... & Harris, C. (2006). Youth and parental perceptions of parental monitoring and parent-adolescent communication, youth depression, and youth risk behaviors. *Social Behavior and Personality: an international journal*, *34*(10), 1297-1310.

Zakeri, H., & Karimpour, M. (2011). Parenting styles and self-esteem. *Procedia-social and behavioral sciences*, *29*, 758-761.

Zak-Hunter, L. M. (2012). *The relationship between perceived partner behaviors and eating disorder symptomology* (Doctoral dissertation, University of Georgia).

Zhang, A. Y., & Snowden, L. R. (1999). Ethnic characteristics of mental disorders in five US communities. *Cultural Diversity and Ethnic Minority Psychology*, *5*(2), 134.

Zubatsky, M., Berge, J., & Neumark-Sztainer, D. (2015). Longitudinal associations between parenting style and adolescent disordered eating behaviors. *Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity*, *20*, 187-194.

Vita

Dominica Colavito

Master of Science Candidate for Human Development and Family Science

Syracuse University

Dominica is from Burlington, NJ. She received her Bachelor of Arts in forensic science and psychology and a minor in chemistry at Syracuse University. Her research interests include childhood development, attachment and parenting styles, and how illness can affect children's growth and mental health.

Education

Bachelor of Arts in Forensic Science and Psychology, minor in Chemistry

Syracuse University (2017-2021)

Master of Science Candidate in Human Development and Family Science

Syracuse University (2021 – Present)