THE EFFECTS OF EMOTION SOCIALIZATION AND PARENTING STYLE ON EATING DISORDER SYMPTOMOLOGY

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Abstract: The prevalence of eating disorders has been increasing across the last few decades (Hoek and van Hoeken, 2003), yet the reason behind this increase is not clear. Previous research has examined the influences of family dynamics on eating related behavior and it has been suggested that authoritative parenting practices may be related to lower incidences of disordered eating patterns (Berge, Wall, Loth, & Neumark-Sztainer, 2010; Enten & Golan, 2009; Haycraft & Blisset, 2010). However, there are likely other family dynamic variables that may influence the development of eating disorders. One other variable that may potentially influence disordered eating patterns is the type of emotion socialization strategies parents utilize with their children. The purpose of the present study was to examine parenting style and emotion socialization variables in relationship to eating disorder symptomology in a sample of 170 adult participants categorized into a clinical or non-clinical group. These participants completed inventories assessing their perceptions of their caregivers' parenting style and emotion socialization strategies as they were growing up and assessing their current eating behaviors. Results suggested initial evidence for a relationship between an authoritative parenting style and lower eating disorder symptomology as well as a relationship between reward emotion socialization strategies and lower eating disorder symptomology. Additionally, negative emotion socialization strategies such as punishing, neglecting, and magnifying, were related to higher levels of disordered eating symptomology. Also, when comparing the clinical and non-clinical groups, the clinical group reported higher levels of authoritarian parenting practices as well as higher levels of punishing and neglecting emotion socialization strategies than the non-clinical group. This study adds to the literature regarding potential family dynamic variables that may influence the development of eating disorders among adolescents and young adults. Implications of the research findings include developing family therapy strategies for the prevention and treatment of eating-related behaviors and emotion regulation among children and adolescents.

TABLE OF CONTENTS

Chapter Page

LIST OF TABLES

Table Page

CHAPTER I

INTRODUCTION

In today's society, increasing attention has been given to weight-related problems and disorders. In June of 2013, the American Medical Association declared that obesity is now considered a disease, in part due to many of the associated health risks that often occur as a result of or concurrently with the extreme weight gain (Pollack, 2013). Eating disorders have also been receiving more attention including the addition of a new eating disorder diagnosis in the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5). Binge-eating disorder has become the newest eating disorder diagnosis and is characterized by eating an amount of food that it is definitely larger than what most people would eat in a similar period of time with a sense of lack of control over eating (American Psychiatric Association, 2013). Anorexia nervosa and bulimia nervosa are two other eating disorder diagnoses that feature restrictive eating behaviors, either in addition to or in the absence of binging behaviors. While eating disorders might typically be seen at the opposite end of the spectrum from obesity, we are now seeing more overlap between eating disorder diagnoses, obesity, and accompanying health risks.

Eating disorders, much like obesity, have become more prevalent throughout the last few decades. The National Eating Disorders Association (NEDA, 2013) estimates

that 10 million men and 20 million women suffer from a diagnosed eating disorder at some point in their life, and that many individuals suffer from eating disorder symptomology and body dissatisfaction but do not ever receive treatment. Additionally, Hoek and van Hoeken (2003) report that there has been a rise in the incidence of anorexia nervosa in young women aged 15-19 in each decade since the 1930s and the incidence of bulimia nervosa in women aged 10-39 tripled between the years 1988 and 1993. The prevalence of diagnosed eating disorders is increasing and in general, body dissatisfaction and body image issues are emerging among young people at an alarming rate.

With the increase in eating disorder development among children, adolescents, and young adults, the question arises regarding what factors influence the development of these disorders within the first few decades of life. Media sources such as television shows, magazines, and even social media sites are likely contributing to this increase since women and men are ideally portrayed as physically fit, thin, and definitely not overweight. The NEDA (2012) reports a positive relationship between the amount of time female adolescents spend on social media sites and the likelihood of developing an eating disorder. Media likely plays a role in an individual's overall body image and eating habits but this does not explain why many individuals who observe and utilize media sources do not develop eating disorders. Other factors are also likely involved in the role of eating disorder symptomology.

The nuclear family system is highly influential on the development of children and adolescents in all aspects of behavior, emotions, and health. Family dynamic factors are also prominent influence on the development of eating habits among children and adolescents. One variable that is likely relevant within a family is parenting style. A

leading researcher in the area of parenting style, Diana Baumrind, has identified two general dimensions of parenting. One general dimension is referred to as *demandingness* and involves the discipline and expectations a parent has for their child and how they enforce these demands to their child. The other dimension of *responsiveness* refers to the level of support and individuality that a parent fosters for their children (Baumrind, 1991). Thus, parents can utilize parenting practices that fall along the continuum of these two dimensions (see Table 1). According to Baumrind (1971; 1991), *authoritative* parents typically score high on both the demandingness and the responsiveness dimensions of parenting behaviors. Contrastingly, *authoritarian* parents have been found to be high on the demandingness dimension but low on the responsiveness dimension. *Permissive* parents are low on the demandingness dimension but high in the responsiveness dimension. Finally, *rejecting-neglecting* (sometimes referred to as *disengaged*) parents are low on both dimensions of parenting style. Parents typically fall into one of these categories but can fluctuate or utilize a combination of parenting styles while raising their children.

Table 1

Parenting Style Dimensions

Parenting Style	Dimension	
	Demandingness	Responsiveness
Authoritative	High	High
Authoritarian	High	Low
Permissive	Low	High
Rejecting-Neglecting	Low	Low

Previous research has examined the role that parenting practices have played among maladaptive eating patterns and the presence of eating disorders; however this research body is limited. One finding that has emerged across research is that an

authoritative parenting style (e.g. high levels of support and demandingness) typically displays a negative correlation with eating disorders or other eating problems (Berge, Wall, Loth, & Neumark-Sztainer, 2010; Enten & Golan, 2009; Haycraft & Blisset, 2010). Additionally, some research has found that not only were *authoritative* parenting practices negatively related to eating related problems, but *authoritarian* parenting practices were positively related to eating disorder symptomology (Jauregui Lobera, Bolanos Rios, & Garrido Casals, 2011). In terms of permissive parenting practices, results from previous studies have been mixed regarding the potential influence of this style on eating and health behaviors. It seems that a small body of literature exists to demonstrate a relationship between authoritative parenting practices and the prevention of eating disorders, but more research is needed to investigate the impact that various parenting styles have on eating disorder symptomology and eating behaviors. More research is also needed to determine if there are other family dynamic factors, including genetic and environmental factors, which contribute to eating disorder pathology.

Additional family dynamic factors that can influence the development of eating disorders are the emotion regulation and socialization practices that are fostered within the family. O'Neal and Magai (2005) examined the parental emotional socialization strategies that were reported by children during situations when the child was feeling sad, angry, scared or ashamed. These researchers also examined the externalizing and internalizing behaviors displayed by the child participants (as reported by the child themselves and a teacher) in relation to the emotion socialization practices. The results from the study indicated that emotional socialization strategies such as neglecting, punishing, magnifying, and overriding were all related to internalizing behaviors as

reported by the child. These results have implications for eating disorder research since eating disorder symptoms are typically considered to be internalizing behaviors. An additional study examined the emotional climate of the family and eating disorder symptomology in a sample of young adults. Lyke and Matsen (2013) found that affective responsiveness within the family predicted several risk factors for eating disorder development, meaning that unhealthy affective responsiveness was associated with higher levels of social and personal anxiety as well as general dissatisfaction. These studies provide initial evidence for the relationship between emotional socialization practices and the development of eating disorder pathology. However, more research is needed to examine the direct relationship between emotion socialization strategies and eating disorder symptomology (rather than general internalizing behaviors) within clinical and non-clinical populations.

It seems that limited research exists that directly examines the relationship between eating disorder symptomology and family dynamic factors such as parenting style and emotion socialization strategies. Additionally, these variables have been examined in either a clinical or non-clinical population through separate studies, but little research exists that compares these two populations within the same study.

Purpose of the Present Study

The purpose of the present study was to examine individual perceptions of parenting style and parental emotional socialization strategies in relation to reported disordered eating symptomology within a young adult population. Additionally, the present study compared perceptions of these family dynamic variables among individuals who have and have not received treatment for an eating disorder diagnosis at some point

throughout their life. The present study added to the literature regarding the factors that are influential in eating disorder development with the hopes of utilizing this information to more effectively treat and prevent eating disorders from continuing to increase in prevalence among young adults in the future.

Research Questions

The research questions for the current study include:

1) Are there differences regarding perceptions of caregivers' parenting style and emotion socialization practices between young adults who report a clinical level of eating disorder symptomology and/or have received treatment for an eating disorder and young adults who do not report a clinical level of eating disorder symptomology and have never received treatment for an eating disorder?
2) What is the relationship between young adults' perceptions of their caregivers' parenting style (e.g. authoritative, authoritarian, and permissive) and self-reported eating disorder symptomology?
3) What is the relationship between young adults' perceptions of emotion socialization strategies utilized within their nuclear family and self-reported eating disorder symptomology?

Definition of Terms

Nuclear family: the family system comprised of parents or caregivers and their children; also referred to as an individual's family of origin or the original nuclear family of an adult (Nichols, 2013).

Parenting style: a classification of parenting behavior that describes how parents balance and reconcile the joint needs of children for nurturance and limit-setting

(Baumrind, 1991). Baumrind defined styles of parenting based on the level of demandingness and responsiveness the parents provided:

- Authoritative: parenting practices that utilize high levels of demands or structure as well as high levels of responsiveness or support.
- Authoritarian: parenting practices that utilize high levels of demands or structure but low levels of responsiveness or support.
- Permissive: parenting practices that utilize low levels of demands or structure but high levels of responsiveness or support.
- Neglecting-rejecting: parenting practices that utilize low levels of demands or structure and low levels of responsiveness or support.

For the present study, this variable will be defined as the participants' perceptions of both their male and female caregivers' parenting style while they were growing up within their nuclear family.

Emotion socialization: parental patterns of behavioral and emotional reactions in response to emotional expression by children and adolescents (O'Neal & Magai, 2005). These researchers defined five emotion socialization strategies as follows:

- Punish: a parent discourages a child's emotion expression by showing disapproval of the child's emotion and/or mocking the child for expressing an emotion.
- Neglect: a parent ignoring the child's emotion expression or not being available.
- Override: a parent silencing a child's expressed emotion by dismissing or distracting the child.
- Magnify: a child expresses an emotion and the parent subsequently responds to the child by expressing the same emotion with equal or stronger intensity.

- Reward: a parent provides comfort, empathizes, and helps the child solve his or her problems.

For the present study, this variable will be defined as the participants' perceptions of both their male and female caregivers' emotion socialization strategies while they were growing up within their nuclear family.

Eating disorder symptomology: self-reported level of disordered eating patterns in the three months prior to participation in the proposed research study as measured by the Eating Attitudes Test (EAT-26; Garner, D.M., Olmsted, M.P., Bohr, Y., & Garfinkel, P.E., 1982).

Hypotheses

The first hypothesis was that higher levels of authoritarian parenting practices and negative emotion socialization strategies would be reported by those participants who reported receiving treatment for an eating disorder diagnosis and/or reported clinical levels of eating disorder symptomology (H1). Again, this hypothesis was based on previous research that has demonstrated a limited relationship between more restrictive parenting and emotion socialization strategies and more reported disordered eating patterns in both clinical and non-clinical samples.

The second hypothesis was that a positive relationship between eating disorder symptomology and authoritarian parenting style (e.g. high level of demandingness and low level of support) and a negative relationship between authoritative parenting style (e.g. high level of demandingness and high level of support) and eating disorder symptomology would emerge, controlling for history of treatment (H2). This hypothesis was based on the findings from previous studies where authoritative parenting practices

were related to lower dysfunctional eating patterns (Berge, Wall, Loth, & Neumark-Sztainer, 2010; Enten & Golan, 2009; Haycraft & Blisset, 2010) and authoritarian parenting practices were related to eating disorder symptomology (Jauregui Lobera, Bolanos Rios, & Garrido Casals, 2011). The third hypothesis was that a positive relationship between negative emotion socialization strategies (e.g., neglect, override, magnify, & punish) and eating disorder symptomology, and a negative relationship between the rewarding emotion socialization strategy and eating disorder symptomology would emerge, controlling for history of treatment (H3). This hypothesis was based on the prior research studies demonstrating a relationship between internalizing behaviors and disordered eating patterns with more restrictive and unhealthy emotional patterns (Lyke & Matsen, 2013; O'Neal & Magai, 2005).

CHAPTER II

METHODS

Participants

Due to the need for both a clinical and non-clinical group, participants for the present study were recruited from a variety of sources. The primary recruitment format was an online research participation program called Sona through the College of Education at Oklahoma State University. A small number of participants were also recruited via flyers that were sent to clinicians and therapists treating eating disorders across the Midwest, through a notification on the lead researcher's Facebook® profile, and from the Eating Disorders Program at the Laureate Psychiatric Clinic and Hospital in Tulsa, Oklahoma. The only requirement for participation was the individual had to agree they were 18 years of age or older before being allowed to complete the inventories.

The overall sample consisted of 170 individuals (123 female; 47 male) and the mean age of the entire sample was 26.36 years (see Table 2). The majority of the overall sample was Caucasian (n = 157; see Table 3) and was not Hispanic or Latino. The participants were then placed into one of two groups based on their report of eating disorder symptomology and prior or current treatment for an eating disorder diagnosis. Those participants who scored at the clinical level for their eating disorder symptomology

or reported treatment for an eating disorder diagnosis were placed into the 'clinical' group (n = 44) and all other participants were placed into the 'non-clinical' group (n = 126).

Table 2

Overall Sample and Group Characteristics: Sample Size, Age. and Gender

	Overall Sample	Clinical Group	Non-Clinical Group
Sample Size (n)	170	44	126
Mean Age	26.36	27.16	26.09
Male	47	9	38
Female	123	35	88

Table 3

Overall Sample Characteristics: Race

Race	Frequency	Percent
African American	11	6.5%
Asian	9	5.3%
Caucasian	133	78.7%
American Indian	7	4.1%
Hawaiian Islander	1	0.6%
Other	8	4.7%

Instruments

Participants were asked to complete a series of instrument through the use of Qualtrics©, an online research database. Participants first completed a brief demographic questionnaire, which included their age, gender, and racial/ethnic identification. This questionnaire also included two items assessing whether the participants have ever received in-patient or out-patient treatment for an eating disorder diagnosis and whether this treatment is occurring currently or was in the past (see Appendix A). Participants then completed three additional measures assessing parenting style, parent emotion socialization strategies, and disordered eating patterns.

Parental Authority Questionnaire. The Parental Authority Questionnaire (PAQ; Buri, 1991) is a 30-item scale that was completed by participants to assess both male and female parent or caregiver's parenting style. This measure provides scores for three distinct parenting styles as defined by Baumrind (1966; 1971; 1991): authoritative, authoritarian, and permissive. A sample item corresponding to an authoritative parenting style is: "As I was growing up, once family policy had been established, my father/mother discussed the reasoning behind the policy with the children in the family." A sample item corresponding to an authoritarian parenting style is: "Whenever my father/mother told me to do something as I was growing up, he/she expected me to do it immediately without asking any questions." A sample item corresponding to a permissive parenting style is: "As I was growing up, my father/mother allowed me to decide most things for myself without a lot of direction from him/her." The items on this measure are rated on a 5-point scale (1 = strongly disagree; 5 = strongly agree) and scores for this measure are found by totaling the scores on the items pertaining to a particular parenting style. Item structure for both the mother and father versions are identical aside from the word 'mother' within the version for the female parent and the word 'father' within the version for the male parent. Appendix B contains the mother version of the questionnaire; the father version replaces all female gender indicators with male gender indicators.

Adequate internal consistency and test-retest reliability levels were established with a sample of undergraduate students during the measure's development and ranged from .74 to .87 for internal reliability and .77 to .92 for test-retest reliability (Buri, 1991). Since the development of this measure, it has been utilized extensively with adolescent

and adult populations to assess perceptions of parenting style and has demonstrated consistency and little bias regarding social desirability (Buri, 1991; Enten & Golan, 2008). For the present study, this measure will be completed twice, once for the male parent and once for the female parent. At the beginning of each questionnaire, the participant was asked if they could identify someone in their life whom they view as their male and female parents. If a participant could only identify one parental figure (e.g. single-parent family) they completed the measure once for the gender appropriate for that parent.

Emotions as a Child Scale. The Emotions as a Child Scale (EAC; O'Neal & Magai, 2005) includes a 64- item Emotion Socialization Strategies subscale which examines five different types of emotional strategies parents might utilize when children express emotion. The EAC also includes a 49-item Emotion Regulation Strategies subscale to assess the strategies an individual utilizes to regulate emotions. For the present study, only the Emotion Socialization Strategies subscale was used to assess the types of emotional support the participants received from their parents when they were feeling sad, angry, fearful, or ashamed. The five types of emotional socialization strategies are neglect, override, magnify, reward, and punish. A sample item corresponding to the neglecting emotional strategy is: "When I felt sad, my mother was usually not around." A sample item corresponding to the overriding emotional strategy is: "When I felt sad, my mother told me not to worry." A sample item corresponding to the magnifying emotional strategy is: "When I felt sad, my mother got sad too." A sample item corresponding to the rewarding emotional strategy is: "When I felt sad, my mother understood why I was sad." A sample item corresponding to the punishing

emotional strategy is: "When I felt sad, my mother called me a crybaby." The items are rated on a 7-point Likert scale (1 = not at all like my mother/father; 7 = exactly like my mother/father). A global score will be calculated for each of the five emotional strategy categories and subscale scores will also be calculated for each emotional strategy within each emotional situation (e.g. sad-neglect, anger-neglect, fear-neglect, shame-neglect, sad-override, etc.).

The EAC Inventory has been utilized in both an interview and self-report format and has been utilized in adult populations with adequate internal reliability and test-retest reliability. Vilker (2000) utilized the EAC self-report format with an adult sample and internal reliability coefficients ranged from .66 to .94 and test-retest reliability coefficients ranged from .43 to .80. Each participant completed this measure once for both the male and female parent. Again, if the participant only was able to identify one parent, he or she completed this measure only once. Appendix C contains the father version of the EAC; the mother version replaces all male gender indicators with female gender indicators.

Eating Attitudes Test. The Eating Attitudes Test (EAT-26; Garner, Olmsted, Bohr, & Garfinkel, 1982; see Appendix D) is a 26-item self-report measure that assesses three factors of disorder eating patterns: Dieting, Bulimia and Food Preoccupation, and Oral Control. Garner et al. (1982) revised the original 40-item measure after extensive factor analyses which resulted in the 26-item measure to be utilized in the present study. A sample item corresponding to the Dieting factor is: "I am preoccupied with the desire to be thinner." A sample item corresponding to the Bulimia and Food Preoccupation factor is: "I have the impulse to vomit after I eat." A sample item corresponding to the

Oral Control factor is: "I take longer than others to eat my meals." Items on this measure are rated on a 6-point Likert scale (1 = Never; 6 = Always). A total score for each factor as well as an overall score will be calculated by adding the responses from each item. Items are scored by giving a weight to the numbered responses. For example, items scored a 1, 2, or 3 will be weighted zero, items scored a 4 are weighted 1, items scored a 5 are weighted 2 and items scored a 6 are rated 3. If a participant's total score is 20 or higher, they are considered to display significant disordered eating symptomology (Garner et al., 1982). The authors of the EAT intended for it to be a first-step or a screener for assessing eating disorder symptomology and then mental health professionals would follow up with clinical interviews and diagnostic assessments to provide an diagnosis and treatment if necessary.

The EAT is one of the most widely utilized *self-report* measures to assess eating disorder symptomology (Herpertz-Dahlmann, 2008). For the present study, permission was obtained from the author of the EAT to replicate and utilize the measure (see Appendix E). While the EAT was not designed to be used as a stand-alone assessment for diagnosing an eating disorder, it has demonstrated a high level of accuracy in identifying those individuals who are experiencing disordered, symptomatic, and asymptomatic eating behaviors. Mintz & O'Halloran (2000) found that the EAT-26 demonstrated a 90% accuracy rate in identifying individuals who presented with a clinical level of eating disorder symptomology within a young adult population (mean age = 19.04 years). Additionally, the EAT-26 demonstrated an internal reliability coefficient of .90 with a clinical population of anorexia nervosa patients (mean age = 21.5

years) and an internal reliability coefficient of .83 with a non-clinical population (mean age = 20.3 years; Garner et al., 1982).

Procedure

After obtaining approval from the Institutional Review Board at Oklahoma State University, all the instruments were entered into an online survey database called Qualtrics© and could be accessed via a unique web address. The study was promoted through Sona, the College of Education's research participation website at Oklahoma State University. Additionally, recruitment flyers to advertise the study and provide the web address were dispersed to mental health professionals working within in-patient and out-patient settings throughout the Midwest. Permission to disperse these flyers was obtained from each professional prior to the distribution. The study's web address was also promoted via a post on the lead researchers Facebook® profile.

At the beginning of the survey, participants were asked to read a brief overview of the purpose of the study and acknowledge their voluntary participation. Participants also acknowledged that they were over the age of 18 years before viewing any of the instruments. Participants then completed and submitted the measures electronically. If a participant could not identify either a male or female caregiver, they simply were directed to the next instrument in the survey. No identifying information was obtained. After completing the questionnaires, participants were given contact information for the lead researcher and the faculty adviser for the study should they have any questions or need any additional information. Resources and information regarding eating disorders and treatment options were also provided in the event that completing the study caused any sort of concern for the participants about their own mental or physical health.

Statistical Analyses

IBM SPSS version 22.0 was used to perform all statistical analyses. The first hypothesis was that higher levels of authoritarian parenting practices and negative emotion socialization strategies would be reported by those participants who report receiving treatment for an eating disorder diagnosis and/or reported clinical levels of eating disorder symptomology. Thus, those individuals who have actually been treated for an eating disorder diagnosis would have experienced more demands and less support for emotional expression while growing up. This hypothesis was assessed through a means comparison analyses to see if a statistically significant difference emerged between those who have received treatment for an eating disorder diagnosis and/or reported clinical levels of eating disorder symptomology and those who did not report any history of treatment or a clinical level of disordered eating symptomology.

The second hypothesis was that a positive relationship between eating disorder symptomology and authoritarian parenting practices (e.g. high level of demandingness and low level of support) and a negative relationship between authoritative parenting practices (e.g. high level of demandingness and high level of support) and eating disorder symptomology would emerge, controlling for history of treatment. This would indicate that the more demands that are placed on an individual without a corresponding level of support, the more likely that individual is to develop eating disorder symptomology. This hypothesis was tested through a correlational analysis to assess the strength of the relationship between the variables of parenting style and eating disorder symptomology.

The third hypothesis was that a positive relationship between negative emotion socialization strategies (e.g., neglect, override, magnify, & punish) and eating disorder

symptomology, and a negative relationship between the rewarding emotion socialization strategy and eating disorder symptomology would emerge, controlling for history of treatment. In other words, the more parents encourage and reward emotional expression within the family, the less likely an individual is to develop eating disorder symptoms. This hypothesis was tested through a correlational analysis to determine the strength of the relationship between the variables of emotion socialization strategies and eating disorder symptomology.

The second and third hypotheses were also assessed through a regression analysis to determine if any variables are significant predictors of eating disorder symptomology. While the correlational analyses gave an indication of the relationship between the two variables, a regression analysis revealed if the variables of parenting style and emotion socialization strategies actually predicted eating disorder symptomology after controlling for history of treatment. For these analyses, the research variables were entered into a regression analysis to examine whether any significant predictors emerged after accounting for history of treatment.

CHAPTER III

RESULTS

Reliability Analyses

The initial analyses consisted of reliability analyses for all of the inventories utilized within data collection. All of the inventories demonstrated adequate levels of reliability except for the scales assessing the magnify style of emotion socialization (see Table 4). The low reliability levels for the magnify scales could have been due to the lower number of items on those scales and are still acceptable given this study's purpose.

Table 4

Reliability Coefficients

Scale	Number of Items	Cronbach's Alpha
Female Authoritative	10	.91
Female Authoritarian	10	.89
Female Permissive	10	.83
Male Authoritative	10	.91
Male Authoritarian	10	.91
Male Permissive	10	.84
Female Neglect	12	.97
Female Override	15	.82
Female Magnify	7	.64
Female Reward	16	.98
Female Punish	12	.93
Male Neglect	12	.97
Male Override	15	.89
Male Magnify	7	.71
Male Reward	16	.98
Male Punish	12	.95
EAT-26	26	.92

Means Comparison Analyses

The first hypothesis was tested through a multivariate t-test analysis to see if participants in the clinical treatment group reported higher levels of authoritarian parenting practices and more negative emotion socialization strategies utilized by their male and female caregivers. A series of Hotelling's T^2 multivariate analyses were conducted to compare the clinical and non-clinical treatment group on the parenting style variables as well as the emotion socialization variables. In total, four multivariate analyses were conducted to examine the parenting style and emotion socialization variables to attempt to meet the homogeneity of covariance assumption. The analyses were conducted separately for male and female caregivers as well as for parenting variables and emotion socialization variables. The homogeneity of covariance assumption was met for the male parenting style variables and the male emotion socialization variables, but not for female parenting style or emotion socialization variables. Consequently, the female caregiver variables were all interpreted with a Bonferoni correction to account for the lack of homogeneity of covariance among these variables. All other assumptions for multivariate analysis were met.

The first multivariate analysis examined differences in the participants' perceptions of their female caregivers' parenting style based on whether the participants were categorized into the clinical or non-clinical group. Using Wilk's statistic, there was a significant effect of group on the participants' perceptions of their female caregivers' parenting style ($\Lambda = .93$, $F\ (3, 166) = 4.22$, $p < .01$). Participants in the non-clinical group ($M = 3.53$, $SD = .75$) rated their female caregivers using significantly *more* authoritative parenting practices than those participants in the clinical group ($M = 3.11$,

SD = 1.00; see Table 5). Cohen's *d* statistic was also computed for all significant differences among the variables. For the difference in female authoritative parenting style the effect size was large (*d* = .56).

The second multivariate analysis examined differences in the participants' perceptions of their male caregivers' parenting style based on whether the participants were categorized into the clinical or non-clinical group. Using Wilk's statistic, there was a significant effect of group on the participants' perceptions of their male caregivers' parenting style ($\Lambda = .92$, $F(3, 157) = 4.53$, $p < .01$). Two significant differences emerged between the clinical and non-clinical groups in regards to the male caregivers' parenting style (see Table 5). Participants in the non-clinical group (*M* = 3.45, *SD* = 0.84) rated their male caregivers using significantly *more* authoritative parenting practices than those participants in the clinical group (*M* = 2.92, *SD* = 0.91). Additionally, participants in the non-clinical group (*M* = 3.29, *SD* = 0.85) rated their male caregivers using significantly *less* authoritarian parenting practices than those participants in the clinical group (*M* = 3.63, *SD* = 0.92). The effect size for the authoritative parenting style was quite large (*d* = .60) and the effect size for the authoritarian parenting style was moderate (*d* = .37).

Table 5

Average Item Means and Std. Deviations for Parenting Style Variables (Rated on a 1-5 Scale)

	Clinical Group		Non-Clinical Group	
	Mean	Std. Deviation	Mean	Std. Deviation
Female Authoritative	3.11**	1.00	3.58**	0.75
Female Authoritarian	3.23	0.85	3.16	0.66
Female Permissive	2.47	0.78	2.42	0.67
Male Authoritative	2.92**	0.91	3.45**	0.84
Male Authoritarian	3.63*	0.92	3.29*	0.85
Male Permissive	2.42	0.82	2.50	0.72

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

The third multivariate analysis examined differences in the participants' perceptions of their female caregivers' emotion socialization strategies based on whether the participants were categorized into the clinical or non-clinical group. Using Wilk's statistic there was a significant effect of group on the participants' perceptions of their female caregivers' emotion socialization strategies ($\Lambda = .91$, F (5, 164) = 3.35, $p < .01$). Participants in the non-clinical group perceived their female caregivers utilizing significantly *less* neglect and punish emotion socialization strategies than those participants in the clinical group (see Table 6). Participants in the non-clinical group (M = 5.38, SD = 1.50) also perceived their female caregivers utilizing significantly *more* reward emotion socialization strategies than those participants in the clinical group (M = 4.34, SD = 1.92). The effect sizes for the differences in neglect (d = .63), reward (d = .62) and punish (d = .55) emotion socialization strategies were all large.

The fourth multivariate analysis examined differences in the participants' perceptions of their male caregivers' emotion socialization strategies based on whether the participants were categorized into the clinical or non-clinical group. Using Wilk's statistic there was a significant effect of group on the participants' perceptions of their male caregivers' emotion socialization strategies ($\Lambda = .86$, F (5, 154) = 4.90, $p < .001$). Similar to the results found for female caregivers, participants in the non-clinical group perceived their male caregiver to utilize significantly *more* reward socialization strategies and *less* neglect and punish emotion socialization strategies than those participants in the clinical group (see Table 6). The findings from the emotion socialization multivariate analyses support the research hypothesis that higher levels of negative emotion socialization strategies would be reported by those participants who report receiving

treatment for an eating disorder diagnosis and/or reported clinical levels of eating disorder symptomology.

Table 6

Average Item Means and Std. Deviations for Emotion Socialization Strategies (Rated on a 1-7 Scale)

	Clinical Group		Non-Clinical Group	
	Mean	Std. Deviation	Mean	Std. Deviation
Female Neglect	2.79**	1.77	1.86**	1.27
Female Override	3.91	0.92	3.95	1.11
Female Magnify	3.45	1.11	3.15	1.07
Female Reward	4.34**	1.92	5.38**	1.50
Female Punish	2.85**	1.52	2.11**	1.23
Male Neglect	3.54**	1.97	2.38**	1.57
Male Override	4.32	1.07	4.04	1.29
Male Magnify	2.85	1.07	2.48	1.10
Male Reward	3.68**	1.75	4.60**	1.62
Male Punish	2.86**	1.60	1.90**	1.25

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

Correlational Analyses

Initial correlational analyses examined the relationship between male and female caregivers' parenting style to determine the degree to which participants in the present study perceived their caregivers' to be parenting consistently. Overall, these analyses revealed that male and female parenting styles were consistently correlated positively with each other. In other words, the participants in the present study perceived the parenting style displayed by the female caregiver to be similar to the parenting style displayed by the male caregiver (see Table 7). Additionally, significant correlations were found within one gender's parenting style. For example, female caregivers' authoritative parenting style was negatively correlated to their authoritarian parenting style ($r = -.30$, $p < .001$) and positively related to their permissive parenting style ($r = .27$, $p < .001$). This same pattern was found for male caregivers (see Table 7).

Table 7

Correlations between Parenting Styles

	1	2	3	4	5	6
1. Female Authoritative	--					
2. Female Authoritarian	-.30**	--				
3. Female Permissive	.27**	-.16*	--			
4. Male Authoritative	.63**	-.24**	.16*	--		
5. Male Authoritarian	-.22**	.43**	-.16*	-.34**	--	
6. Male Permissive	.12	.04	.64**	.18*	-.40**	--

Note: *$p < .05$; **$p < .01$

An additional correlational analysis examined the relationship between male and female caregivers' emotion socialization strategies. The emotion socialization strategies also were found to be correlated with each other. For example, negative emotion socialization strategies (e.g., override, magnify, neglect, and punish) tended to be positively correlated with each other and the positive emotion socialization strategy (e.g. reward) tended to be negatively correlated with the other four emotion socialization strategies (see Table 8).

Table 8

Correlations between Emotion Socialization Strategies

	1	2	3	4	5	6	7	8	9	10
1.Female Neglect	--									
2.Female Override	-.06	--								
3.Female Magnify	.20**	.41**	--							
4.Female Reward	-.76**	.25**	-.12	--						
5.Female Punish	.70**	.10	.43**	-.62**	--					
6.Male Neglect	.70**	-.15	.03	-.59**	.47**	--				
7.Male Override	-.13	.60**	.31**	.20*	-.09	-.15	--			
8.Male Magnify	.28*	.15	.55**	-.14	.44**	.13	.17*	--		
9.Male Reward	-.46**	.17*	.06	.56**	-.36**	-.76**	.27**	.03	--	
10.Male Punish	.56**	.05	.29**	-.44**	.72**	.55**	.00	.53**	-.41**	--

Note: *$p < .05$; **$p < .01$

Correlations were also examined between parenting style and emotion socialization strategies (see Tables 9 and 10). In general, the authoritative parenting style was positively correlated with the reward emotion socialization strategy and negatively correlated with the negative emotion socialization strategies, for both male and female caregivers. The override emotion socialization strategy is the exception and was positively correlated with the authoritative parenting style. Conversely, the authoritarian

parenting style tended to be positively correlated with the negative emotion socialization strategies and negatively correlated with the reward emotion socialization strategy, for both male and female caregivers. However, for male caregivers, the override and magnify emotion socialization strategies were not positively correlated with the authoritarian parenting style.

Table 9

Correlations between Female Parenting Style and Emotion Socialization Strategies

	Female Neglect	Female Override	Female Magnify	Female Reward	Female Punish
Female Authoritative	-.66**	.16*	-.18*	.77**	-.56**
Female Authoritarian	.30**	.26**	.26**	-.37**	.50**
Female Permissive	.01	.04	.17*	.16*	-.01

Note: *$p < .05$; **$p < .01$

Table 10

Correlations between Male Parenting Style and Emotion Socialization Strategies

	Male Neglect	Male Override	Male Magnify	Male Reward	Male Punish
Male Authoritative	-.68**	.29**	-.16*	.78**	-.50**
Male Authoritarian	.24**	.05	.14	-.30**	.29**
Male Permissive	-.12	-.03	.09	.18*	-.01

Note: * $p < .05$; **$p < .01$

After conducting correlational analyses to determine the relationships between the family dynamic variables, additional correlational analyses were conducted to examine the relationship between the family dynamic variables and scores on the EAT-26 as

predicted by the second and third hypotheses. The second hypothesis was tested through a correlational analysis that examined the relationship between caregivers' parenting style and participants' reported level of eating disorder symptomology. An authoritative parenting style from the female caregiver was negatively correlated with eating disorder symptomology (r = -.24, p = .002) and a permissive parenting style from the female caregiver was positively correlated with eating disorder symptomology (r = .18, p = .018). However, an authoritarian parenting style from the female caregiver was not significantly correlated with eating disorder symptomology (see Table 11). An authoritative parenting style from the male caregiver was also negatively correlated with eating disorder symptomology (r = 0.30, p < .001). However, there were no significant correlations between an authoritarian or permissive parenting style from the male caregiver and eating disorder symptomology. Thus, the second hypothesis was partially supported—authoritative parenting practices were significantly correlated with less eating disorder symptomology but authoritarian parenting practices were not correlated with higher levels of eating disorder symptomology.

Table 11

Correlations between Parenting Style and Eating Disorder Symptomology

Parenting Style	**EAT-26 Total Score**
Female Authoritative	-.24**
Female Authoritarian	.11
Female Permissive	.18*
Male Authoritative	-.30**
Male Authoritarian	.12
Male Permissive	.05

*p < .05; **p < .01

The third hypothesis was tested through a correlational analysis that examined the relationship between caregivers' emotion socialization strategies and participants'

reported level of eating disorder symptomology. For female caregivers, negative emotion socialization strategies were significantly related to higher levels of eating disorder symptomology (see Table 12). Specifically, the emotion socialization strategies of neglect ($r = .38$, $p < .001$), magnify ($r = .22$, $p = .004$), and punish ($r = .41$, $p < .001$) were all positively related to eating disorder symptomology. Also for female caregivers, the emotion socialization strategy of rewarding was negatively related to eating disorder symptomology ($r = -.28$, $p < .001$). For male caregivers, the results were similar. The emotion socialization strategies of neglect ($r = .35$, $p < .001$), magnify ($r = .32$, $p < .001$), and punish ($r = .36$, $p < .001$) from a male caregiver were all positively related to eating disorder symptomology. Additionally, the emotion socialization strategy of reward from a male caregiver was negatively related to eating disorder symptomology ($r = -.25$, $p = .002$). The emotion socialization strategy of override was the only strategy found to not be significantly related to eating disorder symptomology for either female or male caregivers. Thus, the third hypothesis was supported in that three of the four types of negative emotion socialization strategies positively correlated with eating disorder symptomology and the positive emotion socialization strategy (e.g. rewarding) was negatively correlated with eating disorder symptomology for both male and female caregivers.

Table 12

Correlations between Emotion Socialization Strategies and Eating Disorder Symptomology

Emotion Socialization Strategy	EAT-26 Total Score
Female Neglect	.38**
Female Override	.01
Female Magnify	.22**
Female Reward	-.28**
Female Punish	.41**
Male Neglect	.35**
Male Override	.04
Male Magnify	.32**
Male Reward	-.25**
Male Punish	.36**

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

Regression Analyses: Parenting Style

The second and third hypotheses were also examined by conducting a series of regression analyses to assess if any family dynamic variables significantly predicted scores on the measure of eating disorder symptomology. All assumptions for regression were tested and met before running the analyses. A full-model simultaneous entry regression was utilized to examine female parenting styles and eating disorder symptomology while also accounting for the effects of treatment group (e.g. previous treatment and/or a clinical score on the EAT-26 *or* no previous treatment and/or a non-clinical score on the EAT-26). The three continuous variables of female parenting style as well as the categorical variable of treatment group were entered into a regression analysis model and the dependent variable was the total score on the EAT-26. This regression model was significant (F (4, 169) = 36.66, $p < .001$) and predicted about 46 percent of the variance in eating disorder symptomology (Adjusted $R^2 = .46$; see Table 13). More specifically, treatment group ($\beta = .61$, $p < .001$), an authoritative parenting style from the female caregiver ($\beta = -.12$, $p = .05$) and a permissive parenting style from

the female caregiver ($\beta = .21$, $p = .001$) significantly predicted eating disorder symptomology. Thus, treatment group was the most significant predictor of eating disorder symptomology, but even after accounting for this relationship, an authoritative and permissive parenting style from the female caregiver were also significant predictors. Consistent with the zero-order correlations, authoritarian parenting style from the female caregiver was not significant in this regression analysis.

Table 13

Summary of Regression Analyses for Female Parenting Style Variables Predicting Eating Disorder Symptomology

	Eating Disorder Symptomology		
Variable	*B*	*SE B*	*β*
Group	30.29	2.92	.61**
Female Authoritative	-.32	.16	-.12*
Female Authoritarian	.23	.18	.08
Female Permissive	.65	.19	.21**
R^2		.46	
F		36.66**	

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

A second full-model simultaneous entry regression was conducted to examine male parenting styles and eating disorder symptomology, while accounting for previous treatment. The three continuous variables of male parenting style as well as the categorical variable of treatment group were entered into a regression analysis model and the dependent variable was the total score on the EAT-26. This regression model was significant (F (4, 160) = 32.14, $p < .001$) and predicted about 44 percent of the variance in eating disorder symptomology (Adjusted $R^2 = .44$; see Table 14). The variable of treatment group was the most significant predictor of eating disorder symptomology ($\beta = .62$, $p < .001$). For male caregivers, only one parenting style significantly predicted eating disorder symptomology. An authoritative parenting style significantly predicted

eating disorder symptomology (β = -.15, p = .02), but consistent with the zero-order correlations, authoritarian and permissive parenting styles from the male caregiver were not significant predictors of eating disorder symptomology.

Table 14

Summary of Regression Analyses for Male Parenting Style Variables Predicting Eating Disorder Symptomology

	Eating Disorder Symptomology		
Variable	*B*	*SE B*	β
Group	30.64	3.08	.62**
Male Authoritative	-.38	.16	-.15*
Male Authoritarian	.02	.17	.01
Male Permissive	.32	.19	.11
R^2		.44	
F		32.14**	

*p < .05; **p < .01

A third full-model simultaneous entry regression was conducted to examine both caregivers' parenting style and eating disorder symptomology while controlling for treatment group. Thus, the six continuous variables of male and female parenting styles were entered into the regression as well as the categorical variable of treatment group to predict total scores on the EAT-26. This regression model was significant (F (7, 160) = 21.866, p < .001) and predicted about 48 percent of the variance in eating disorder symptomology (Adjusted R^2 = .48; see Table 15). Again, treatment group was the strongest predictor of eating disorder symptomology within this model (β = .59, p < .001). Interestingly, only two parenting styles were significant predictors of eating disorder symptomology within this model. A permissive parenting style from the female caregiver significantly predicted eating disorder symptomology (β = .30, p < .001) and an authoritarian parenting style from the female caregiver also significantly predicted eating disorder symptomology (β = .15, p = .044). While an authoritarian parenting style from

the female caregiver was not a significant predictor in the previous analysis, when combined with the male parenting style variables, this variable became significant. Additionally, an authoritative parenting style from the female caregiver was significantly correlated with eating disorder symptomology and predicted eating disorder symptomology when examined only with other female parenting styles, but when paired with male parenting styles, became insignificant (β = -.04, p = .611). It is also noteworthy that none of the male parenting style variables were significant when paired with the female variables, although an authoritative parenting style from the male caregiver reached marginal significance (β = -.14, p = .066).

Table 15

Summary of Regression Analyses for Parenting Style Variables Predicting Eating Disorder Symptomology

	Eating Disorder Symptomology		
Variable	*B*	*SE B*	*β*
Group	29.52	3.06	.59**
Male Authoritative	-.35	.19	-.14
Male Authoritarian	-.26	.19	-.11
Male Permissive	-.38	.26	-.13
Female Authoritative	-.11	.21	-.04
Female Authoritarian	.46	.23	.15*
Female Permissive	.95	.26	.30**
R^2		.48	
F		21.87**	

*p < .05; **p < .01

These first three regression analyses provide partial support for the second research hypothesis. While an authoritative parenting style from both the male and female caregiver was a significant predictor when each gender was examined separately, both of these variables were no longer significant predictors when both caregivers were examined together. Also, an authoritarian parenting style was not a significant predictor for either male or female caregivers in the regression analyses when each gender was

examined separately, but an authoritarian style from the female caregiver was significant when examined with both caregivers. Additionally, a permissive parenting style from the female caregiver was a significant predictor of eating disorder symptomology when examined only with other female parenting styles, which was not consistent with the research hypothesis.

Regression Analyses: Emotion Socialization Strategies

Regression analyses were also conducted to examine the relationship between emotion socialization strategies and eating disorder symptomology, while accounting for treatment group. A full-model simultaneous entry regression analysis was utilized to examine if the five emotion socialization variables from the female caregiver and the treatment group variable predicted eating disorder symptomology. This regression model was significant (F (6, 169) = 27.614, $p < .001$) and predicted about 49 percent of the variance in eating disorder symptomology (Adjusted $R^2 = .49$). After accounting for the influence of the treatment group variable ($\beta = .59$, $p < .001$), two other emotion socialization strategies were significant predictors of eating disorder symptomology (see Table 16). Reward from the female caregiver ($\beta = .19$, $p = .041$) and punishment from the female caregiver ($\beta = .24$, $p = .007$) were both positive and significant predictors of eating disorder symptomology. While the punish emotion socialization strategy was hypothesized to be positively related to eating disorder symptomology, the reward emotion socialization strategy was hypothesized to be negatively related with eating disorder symptomology, and thus, this hypothesis was only partially supported.

Table 16

Summary of Regression Analyses for Female Emotion Socialization Variables Predicting Eating Disorder Symptomology

	Eating Disorder Symptomology		
Variable	*B*	*SE B*	*β*
Group	29.12	2.88	.59**
Female Neglect	.22	.12	.18
Female Override	-.09	.10	-.06
Female Magnify	.16	.20	.05
Female Reward	.16	.08	.19*
Female Punish	.32	.12	.24**
R^2		.49	
F		27.61**	

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

Another regression analysis was conducted to examine the relationship between emotion socialization strategies from the male caregiver, treatment group, and eating disorder symptomology. The five emotion socialization strategy variables from the male caregiver were entered into the regression along with the treatment group variable to examine these variables ability to predict eating disorder symptomology. This regression model was significant (F (6, 159) = 25.824, $p < .001$) and predicted about 48 percent of the variance in eating disorder symptomology (Adjusted $R^2 = .48$; see Table 17). Consistent with all previous regressions, treatment group was the most significant predictor of eating disorder symptomology ($\beta = .58$, $p < .001$). Additionally, the emotion socialization strategies of neglect ($\beta = .21$, $p = .034$) and magnify ($\beta = .24$, $p = .001$) from the male caregiver were also significant predictors of eating disorder symptomology. This is consistent with the hypothesis that more negative emotion socialization strategies such as neglect and magnify will be positively related to eating disorder symptomology.

Table 17

Summary of Regression Analyses for Male Emotion Socialization Variables Predicting Eating Disorder Symptomology

	Eating Disorder Symptomology		
Variable	*B*	*SE B*	*β*
Group	28.70	3.04	.58**
Male Neglect	.22	.10	.21*
Male Override	-.04	.07	-.04
Male Magnify	.67	.20	.24**
Male Reward	.03	.08	.04
Male Punish	-.05	.11	-.04
R^2		.48	
F		25.82**	

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

A final regression analysis was conducted to examine all the emotion socialization strategies from both male and female caregivers together. All ten of the emotion socialization variables from both male and female caregivers were entered into a full-model simultaneous entry regression along with the treatment group variable. This model did significantly predict eating disorder symptomology (F (11, 159) = 15.215, $p <$ .001) and predicted about 50 percent of the variance in eating disorder symptomology (Adjusted R^2 = .50; see Table 18). Not surprisingly, treatment group was the most significant predictor (β = .58, $p < .001$). There were also three emotion socialization strategy variables that were significant predictors: magnify from the male caregiver (β = .22, p = .008), punish from the male caregiver (β = -.20, p = .049), and punish from the female caregiver (β = .30, p = .009). Interestingly, the emotion socialization strategy of punish from the male caregiver was in the opposite direction as hypothesized and was actually negatively related to eating disorder symptomology. While the zero-order correlations between emotion socialization strategies and eating disorder symptomology supported the third research hypothesis, the regression analyses revealed that not many of

the research variables predicted eating disorder symptomology in the hypothesized direction.

Table 18

Summary of Regression Analyses for Emotion Socialization Variables Predicting Eating Disorder Symptomology

	Eating Disorder Symptomology		
Variable	*B*	*SE B*	*β*
Group	28.98	3.07	.58**
Male Neglect	.20	.13	.19
Male Override	.02	.09	.01
Male Magnify	.62	.23	.22**
Male Reward	.00	.08	.00
Male Punish	-.26	.13	-.20*
Female Neglect	.04	.16	.03
Female Override	-.06	.12	-.04
Female Magnify	-.10	.24	-.04
Female Reward	.12	.09	.15
Female Punish	.41	.15	.30**
R^2		.50	
F		15.22**	

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

CHAPTER IV

DISCUSSION

The purpose of the present study was to examine the relationship between individual perceptions of parenting style and parental emotional socialization strategies with reported disordered eating symptomology among a young adult population. Additionally, the present study compared perceptions of these family dynamic variables among individuals who reported a clinical level of disordered eating symptomology or had received treatment for an eating disorder and those who had not. The specific variables assessed included the participants' perceptions of both their male and female caregivers' parenting style, the participants' perceptions of both their male and female caregiver's manner of providing emotional support, and the participants' perceptions of their own current disordered eating behaviors. Since the focus of this research study was on the relationship between the family dynamic variables and eating disorder symptomology, this section will be organized by each independent variable and the demonstrated relationship with disordered eating behaviors.

Parenting Style and Eating Disorder Symptomology

Previous research has demonstrated a significant relationship between authoritative parenting practices and the lower incidence of eating or weight-related problems (Berge, Wall, Loth, & Neumark-Sztainer, 2010; Enten & Golan, 2009;

Haycraft & Blisset, 2010). This relationship was also found in the present study with authoritative parenting practices being significantly related to lower levels of eating disorder symptomology from both the male and female caregiver. Specifically, this relationship was found for both correlational analyses and the regression analyses that were conducted separately for male and female caregivers. As previously stated, authoritative parenting involves a high level of demandingness or high expectations as well as a high level of support. Providing both structure and support for children and adolescents creates an environment where children know what to expect from their parents, what is expected of them, and that the caregivers will be supportive throughout stressful situations. When this type of environment is present, children may be much less likely to develop eating disorder symptomology since they may be more skilled at tolerating stress and regulating their emotions, which have been shown to be negatively related to eating disorder symptomology (Mazzeo & Bulik, 2008). However, when the parenting style from both male and female caregivers were examined together in a regression analysis, the significant relationship between authoritative parenting practices and lower levels of eating disorder symptomology was no longer present. This may be explained due to the lack of strength regarding the relationship between authoritative parenting practices and eating disorder symptomology. Even within the regressions that were conducted separately for male and female caregivers, authoritative parenting practices were significant predictors but these associations were moderate. Thus, when more variables were added to the regression analysis from both caregivers, the authoritative parenting variables may not have carried enough weight to predict eating disorder symptomology above and beyond the influence of treatment group.

Additionally, permissive parenting practices from the female caregiver were positively related to eating disorder symptomology in both the correlation and regression analyses. This relationship is especially interesting due to the strength of the relationship across all the analyses, including when both male and female caregivers were entered together into the regression analysis. While permissive and authoritative parenting practices are both characterized by high levels of support, these styles differ in regards to the level of demandingness involved. Permissive parents tend to provide a lot of support but lack rules, structure, or clear expectations for their children. It could be that the lack of expectations could foster questions regarding control and safety, thus causing stress and potentially eating related problems for children and adolescents. Another potential explanation for the strong relationship between permissive parenting practices and eating disorder symptomology is that in the present study, permissive parenting practices were positively correlated with authoritative parenting practices. It could be that if parents utilize a combination of both permissive and authoritative parenting practices, they create confusion regarding the expectations and rules for their children. When a consistent structure or set of expectations are not provided for children and there is a sense of a loss of control or predictability of the child's daily environment, internalizing disorders may develop as way for children to cope with wanting an element of control over some aspect of their lives. Previous research has demonstrated a link does indeed exist between family cohesion, conflict, and parent-child relationships in relationship to internalizing problems and behaviors in adolescents (Deng et al., 2006; Harold & Conger, 1997). Thus eating-related problems may have been related to permissive parenting practices in the

present study as a product of variable amounts of structure or instability in the child or adolescent's life.

A difference between the findings in the present study and previous research was found regarding the relationship between authoritarian parenting practices and eating disorder symptomology. Previous research has suggested a link between authoritarian parenting practices and eating disorder symptomology (Jauregui Lobera, Bolanos Rios, & Garrido Casals, 2011); however in the present study, authoritarian parenting practices were not correlated with eating disorder symptomology from either the male or female caregiver. In fact, the only significant relationship between an authoritarian parenting style and eating disorder symptomology was found when all the parenting style variables and the treatment group variable were entered into a regression analysis. An authoritarian parenting style from the female caregiver was a significant predictor of eating disorder symptomology only among the other parenting style variables and after accounting for treatment group. In Jauregui Lobera, Bolanos Rios, and Garrido Casals (2011), the significant relationship between authoritarian parenting practices and eating disorder symptomology was found among a sample of patients receiving outpatient treatment for an eating disorder diagnosis. Since the present study did not have a large amount of participants who met the criteria for the treatment group, this could be why the previously suggested relationship was not replicated within this study's sample except when treatment was taken into account. Thus, authoritarian parenting practices may only be related to clinical levels of eating disorder symptomology and since the majority of the sample population in the present study did not demonstrate a clinical level of symptomology, the relationship was not found within the correlational analyses.

Emotion Socialization and Eating Disorder Symptomology

The present study also examined eating disorder symptomology as related to and predicted by emotion socialization strategies. Previous research has demonstrated that emotion regulation strategies can play an influential role in the development of eating disorders or problematic eating behavior (Courtney, Gamboz, & Johnson, 2008; Mazzero & Bulik, 2008). However, the present study examines a novel relationship between the participant's perceptions of the emotion regulation strategies utilized by their parents and eating disorder symptomology. The five emotion regulation strategies of punish, neglect, override, magnify and reward were examined in relationship to eating disorder symptomology and identical results were found for both male and female caregivers. The emotion socialization strategies of neglect, magnify, and punish were positively correlated to eating disorder symptomology and the emotion socialization strategy of reward was negatively correlated to eating disorder symptomology. This is consistent with previous research examining the relationship between these emotion socialization strategies and externalizing and internalizing behaviors in a child population (O'Neal & Magai, 2005). The emotion socialization strategies of neglect and punish involve parents either dismissing, ignoring or showing obvious disapproval of their children displaying or expressing emotions and thus children may develop internalizing disorders such as disordered eating behavior as a result of lack of emotional regulation skills. The emotion socialization strategy of magnify involves the parents expressing the same emotion as their child in an equal or even stronger degree. This could lead to escalation of the situation and even more distress for the child who may develop internalizing symptoms such as eating related problems to deal with the increased distress. Conversely, a

rewarding or coaching emotion socialization strategy involves parents who encourage, empathize, and assist children in solving problems and regulating emotions. Parents who utilize more rewarding emotion socialization strategies would likely have children who are less likely to develop eating related disorders since they are modeling positive emotion regulation strategies for their children.

The relationship between emotion socialization strategies and eating disorder symptomology was quite different in the regression analyses when accounting for treatment group. One reason the results might have been inconclusive across analyses is that many of the negative emotion socialization strategies (e.g., punish, magnify, neglect, override) were correlated to each other (see Table 14). It is probably highly unlikely that a parent or caregiver utilizes one emotion socialization strategy exclusively throughout their parenting practices. Thus, the inconclusive results could have been a product of variables that were not exclusive from each other.

However, there were two emotion socialization strategy variables that demonstrated a consistent relationship across the regression analyses when accounting for treatment group. A magnifying emotion socialization strategy from the male caregiver and a punishing emotion socialization strategy from the female caregiver were positive predictors of eating disorder symptomology even when accounting for previous eating disorder treatment or diagnoses and when the regression analyses were conducted separately for male and female caregivers and when both caregivers were included. While no prior research has studied these exact variables, it is interesting that both of the significant emotion socialization predictors seem to contrast with the typical sex-role stereotypes in terms of emotional expression. Females are typically viewed as more

emotionally expressive when compared to males, which conflicts with a punishing emotion socialization style where females would suppress and disapprove of emotional expression in their children. Similarly, males are typically viewed as less emotionally expressive which conflicts with a magnifying emotion socialization style where males would display the same emotion with equal or greater intensity. One potential hypothesis for the rationale behind the significant predictors of a punishing emotion socialization strategy from the female caregiver and a magnifying emotion socialization from the male caregiver could lie in the fact that both of these strategies go against the norm for what society typically expects from males and females in terms of emotion expression. It could be that when parents exhibit qualities against what is typically expected of them, their children may experience confusion and thus may have more internalizing behaviors, including eating-related problems. This is a crude hypothesis however and much more research is needed to examine how sex-role stereotypes impact parents' use of emotion socialization strategies within their parenting roles. Additionally, while the present study provides an indication that negative emotion socialization strategies may be related to higher amounts of disordered eating behaviors, more research is needed to confirm these relationships exist among both clinical and non-clinical populations.

Family Dynamic Differences between Treatment Groups

Further support for the hypotheses that authoritative parenting style and positive emotion socialization strategies would be related to lower levels of eating disorder symptomology was found when comparing the two treatment groups. As mentioned previously, the clinical group in the current study was created from any participants who scored at a clinical level on the Eating Attitudes Test and/or reported current or prior

treatment for an eating disorder diagnosis. All other participants were placed in the non-clinical group. When comparing these two groups, the non-clinical participants reported significantly *higher* levels of authoritative parenting practices *and* rewarding emotion socialization strategies from both the male and female caregiver. Additionally, participants in the non-clinical group reported significantly *lower* levels of authoritarian parenting style *and* punishing and neglecting emotion socialization styles from both the male and female caregiver. These results support prior research on the benefits of authoritative parenting practices and rewarding or coaching the expression of emotion among children and adolescents and provide initial evidence for the relationship that restrictive parenting styles such as authoritarian and neglecting or punishing emotional expression can have on the development of eating disorder symptomology. It seems that in the present study, the most conclusive inferences came from actually comparing clinical and non-clinical populations, indicating that future research should examine eating disorder development within a clinical population to best understand the family dynamic factors that lead to the development of disordered eating behaviors.

Limitations

The limitations of the current study include methodological considerations and sample restrictions. An initial limitation is that all the data provided in the study was based on self-reporting from the participants and thus may not be completely accurate or honest perceptions of reality. Also, the sample in the present study was moderately-sized and thus, some of the inconsistent findings could have been a product of an inadequate sample size for the number of variables and the analyses utilized. Relatedly, when the sample was categorized into the clinical or non-clinical groups, the clinical group was

only about one third the size of the non-clinical group. This was an unexpected outcome of the sample as both clinical and non-clinical participants were recruited for the study. Nevertheless, the uneven group sizes within the sample were a limitation in the current study.

Another limitation in the current study was that retrospective reporting practices were utilized. The participants not only provided self-report data, but they also were providing data from years to decades previously when they reported their perceptions of their caregivers' parenting style and emotion socialization strategies. Anytime data is recalled from memory, there is a chance that discrepancies or errors might be present due to memory biases. However, eating disorder symptomology was reported for current behaviors thus the chance of this data being biased or inaccurate not as high as for the family dynamic variables. A final limitation lies within the subject of the current study in that it is difficult to study parenting variables since it is highly unlikely that parents stick with only one style or strategy in every situation or throughout their entire parenting role. Thus, studying parenting variables for their isolated predictability can be difficult since parents likely use a variety of strategies and practices to assist them in parenting their children to account for the large variability in environment, personality, age, and other contextual factors that arise throughout the 18 initial years of parenting behaviors.

Directions for Future Research

The results from the present study suggest that authoritative parenting practices and rewarding emotion socialization strategies may be related to lower incidences of eating disorder symptomology and are consistent with previous research assessing parenting variables and eating-related behaviors. However, this body of knowledge is

still considerably small and more research is needed to examine and solidify the relationship between family dynamic variables and eating disorder symptomology. Additionally, future research might examine parenting profiles made up of a variety of parenting variables and potentially based on correlations between parenting styles and emotion socialization strategies. This might help to identify certain common profiles of parenting rather than examining isolated variables for their effect on eating disorder symptomology. For example, we may be able to identify certain typologies of parents (e.g., coaches, pacifiers, escalators, etc.) that are comprised of discipline tactics, emotion regulation strategies, support strategies, and other parenting variables that can be examined in relationship to the development of eating disorders and other internalizing or externalizing diagnoses. Finally, future research should continue to examine parenting behaviors and strategies that are related to eating disorder symptomology among diverse populations to determine if the same parenting practices are beneficial across race, ethnicity, and culture.

Implications and Conclusion

Eating disorder treatment can be highly difficult due to the long-term nature of treatment and the high rate of relapse and reoccurrence of symptoms. Thus, research is always needed to ensure psychologists and other mental health professionals are providing the most effective interventions for individual, group, and family therapy settings. One implication of the current study is improved and informed care for the prevention and treatment of eating related behaviors within children, adolescents, and families. While parenting style and emotion regulation are important aspects of discussion in therapeutic settings regardless of the presenting problem, it seems that these

variables might be especially important in the development of eating related behaviors. When children and adolescents are developing within the nuclear family environment, there are a lot of contextual variables that they may not have control over. However, if the environment is unstable, overly harsh and punishing, or neglectful, children might develop habits that allow them to exert some control over an aspect of their life that they *can* influence—their health and eating behaviors. The results of the present study can help psychologists, physicians, and other health providers to not only recognize risk factors or warning signs of a child or adolescent developing an eating disorder but can also inform the treatment of this disorder by incorporating family therapy techniques to address the emotional climate of the nuclear family system.

Overall, the results of the present study add to the literature by suggesting two factors that could be contributing to the increased prevalence of eating disorders in children and adolescents. Parenting style and emotion socialization strategies are two variables that have been studied independently in terms of childhood development of internalizing and externalizing disorders, but the present study studied these two variables together in relationship to eating disorder symptomology. While more research is needed, the present findings suggest a relationship between more harsh or punitive parenting practices and increased eating disorder symptomology while more supportive and rewarding parenting practices were associated with lower levels of eating disorder symptomology. These findings indicate that the parenting strategies utilized by caregivers can be highly influential on the development of internalizing behaviors during the childhood and adolescent years, and can continue to be impactful into adulthood.

REFERENCES

American Psychiatric Association (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Association.

Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child Development*, *37*, 887-907.

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology, Monographs*, *4*, 1-103.

Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence*, *11*, 56-95.

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*, 331-338.

Buri, J.R. (1991). Parental authority questionnaire. *Journal of Personality Assessment*, *57*, 110-119.

Courtney, E.A., Gamboz, J., & Johnson, J.G. (2008). Problematic eating behaviors in adolescents with low-self-esteem and elevated depressive symptoms. *Eating Behaviors*, *9*, 408-414.

Deng, S., Lopez, V., Roosa, M., Ryu, E., Burrell Lockhart, G., Tein, J., & Crowder, S. (2006). Family processes mediating the relationship of neighborhood

disadvantage to early adolescent internalizing problems. *Journal of Early Adolescence*, *26*, 206-231.

Enten, R., & Golan, M. (2008). Parenting styles and weight-related symptoms and behaviors with recommendations for practice. *Nutrition Reviews*, *66*, 65-75.

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

Fuermmeler, B.F., Yang, C., Costanzo, P., Hoyle, R.H., Seigler, I.C., Williams, R.B., & Østbye, T. (2012). Parenting styles and body mass index trajectories from adolescence to adulthood. *Health Psychology*, *31*, 441-449.

Garner, D.M., Olmsted, M.P., Bohr, Y., & Garfinkel, P.E., (1982). The eating attitudes test: psychometric features and clinical correlates. *Psychological Medicine*, *12*, 871-878.

Goossens, L., Braet, C., Van Durme, K., Decaluwé, V., & Bosmans, G. (2012). The parent-child relationship as predictor of eating pathology and weight gain in preadolescents. *The Journal of Clinical Child and Adolescent Psychology*, *41*, 445-457.

Grave, R.D. (2011). Eating disorders: Progress and challenges. *European Journal of Internal Medicine, 22*, 153-160.

Harold, G.T., & Conger, R.D. (1997). Marital conflict and adolescent distress: The role of adolescent awareness. *Child Development*, *68*, 333-350.

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

Herpretz-Dahlmann, B. (2008). Adolescent eating disorders: Definitions, symptomatology, epidemiology and comorbidity. *Child and Adolescent Psychiatric Clinics of North America, 18*, 31-47.

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

Jauregui Lobera, I., Bolanos Rios, P., & Garrido Casals, O. (2011). Parenting styles and eating disorders. *Journal of Psychiatric and Mental Health Nursing*, *18*, 728-735.

Kluck, A.S. (2008). Family factors in the development of disordered eating: Integrating dynamic and behavioral explanations. *Eating Behaviors*, *9*, 471-483.

le Grange, D., & Eisler, I. (2008). Family interventions in adolescent anorexia nervosa. *Child and Adolescent Psychiatric Clinics of North America*, *18*, 159-173.

Lyke, J., & Matsen, J. (2013). Family functioning and risk factors for disordered eating. *Eating Behaviors*. Advance online publication. doi: 10.1016/j.eatbeh.2013.08.009

Mazzeo, S.E., & Bulik, C.M. (2008). Environmental and genetic risk factors for eating disorders: What the clinician needs to know. *Child and Adolescent Psychiatric Clinics of North America*, *18*, 67-82.

Mintz, L.B., & O'Halloran, M.S. (2000). The eating attitudes test: Validation with DSM-IV eating disorder criteria. *Journal of Personality Assessment*, *74*, 489-503.

National Eating Disorders Association. (2012). Going to extremes: Eating disorders. *CNN Health*. Retrieved from http://www.cnn.com/interactive/2012/03/health/infographic.eating.disorders/index.html

National Eating Disorders Association. (2013). Get the facts on eating disorders. Retrieved from http://www.nationaleatingdisorders.org/get-facts-eating-disorders

Nichols, M.P. (2013). *Family therapy: Concepts and methods.* Upper Saddle River, New Jersey: Pearson Education, Inc.

O'Neal, C.R., & Magai, C. (2005). Do parents respond in different ways when children feel different emotions? The emotional context of parenting. *Development and Psychopathology*, *17*, 467-487.

Pollack, A. (2013, June 18). A.M.A. recognizes obesity as a disease. *The New York Times.* Retrieved from http://www.nytimes.com/2013/06/19/business/ama-recognizes-obesity-as-a-disease.html

Shaw, H., Stice, E., & Becker, C.B. (2008). Preventing eating disorders. *Child and Adolescent Psychiatric Clinics of North America*, *18*, 199-207.

Stice, E., Marti, C.N., & Durant, S. (2011). Risk factors for onset of eating disorders: Evidence of multiple risk pathways from an 8-year prospective study. *Behavior Research and Therapy*, *49*, 622-627.

Vilker, R. (2000). *Adult attachment and the socialization of emotions.* Unpublished manuscript, Long Island University, Brooklyn.

APPENDICES

Appendix A: Demographic Questionnaire

Age: _____

Gender (circle one): Male Female Other:_____

Ethnicity (circle one): African American Asian Caucasian

American Indian Hawaiian Islander Other:_____

Nationality (circle one): Hispanic or Latino Not Hispanic or Latino

Have you *ever* received in-patient or out-patient treatment for an eating disorder diagnosis?

YES NO

Are you *currently* receiving in-patient or out-patient treatment for an eating disorder diagnosis?

YES NO

Appendix B: Parental Authority Questionnaire (PAQ; Buri, 1999)
Mother Version

Instructions: For each of the following statements, use the 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*) provided to indicate the number that best describes how that statement applies to you and your mother. Write the number on the line provided. Try to read and think about each statement as it applies to you and the relationship you had with your mother when you were growing up. There are no right or wrong answers, so don't spend a lot of time on any one item. We are looking for your overall impression regarding each statement. Be sure not to omit any items.

First, we want to make sure you can identify someone in your life who you view as your mother or female caregiver. Thinking back to when you were growing up, can you identify someone who you viewed as your mother or female caregiver?* (Circle one)

YES **NO**

Please indicate what relationship this female caregiver had with you (e.g. biological mother, foster/adoptive mother, aunt, grandmother, etc.): _____

*If 'yes' the participant will complete this survey; if 'no' then the participant will be directed to the next survey.

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

_____ 1. While I was growing up my mother felt that in a well-run home the children should have their way in the family as often as the care-givers do.

_____ 2. Even if her children didn't agree with her, my mother felt that it was for our own good if we were forced to conform to what she thought was right.

_____ 3. Whenever my mother told me to do something as I was growing up, she expected me to do it immediately without asking any questions.

_____ 4. As I was growing up, once family policy had been established, my mother discussed the reasoning behind the policy with the children in the family.

_____ 5. My mother has always encouraged verbal give-and-take whenever I have felt that family rules and restrictions were unreasonable.

_____ 6. My mother has always felt that what children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what the parents might want.

_____ 7. As I was growing up my mother did not allow me to question any decision she had made.

_____ 8. As I was growing up my mother directed the activities and decisions of the children in the family through reasoning and discipline.

_____ 9. My mother has always felt that more force should be used by care-givers in order to get their children to behave the way they are supposed to.

_____ 10. As I was growing up my mother did *not* feel that I needed to obey rules and regulations of behavior simply because someone in authority had established them.

_____ 11. As I was growing up I knew what my mother expected of me in my family, but I also felt free to discuss those expectations with my mother when I felt that they were unreasonable.

_____ 12. My mother felt that wise care-givers should teach their children early just who is boss in the family.

_____ 13. As I was growing up, my mother seldom gave me expectations and guidelines for my behavior.

_____ 14. Most of the time as I was growing up my mother did what the children in the family wanted when making family decisions.

_____ 15. As the children in my family were growing up, my mother consistently gave us direction and guidance in rational and objective ways.

_____ 16. As I was growing up my mother would get very upset if I tried to disagree with her.

_____ 17. My mother feels that most problems in society would be solved if parents would *not* restrict their children's activities, decisions, and desires as they are growing up.

_____ 18. As I was growing up my mother let me know what behavior she expected of me, and if I didn't meet those expectations, she punished me.

_____ 19. As I was growing up my mother allowed me to decide most things for myself without a lot of direction from her.

_____ 20. As I was growing up my mother took the children's opinions into consideration when making family decisions, but she would not decide for something simply because the children wanted it.

_____ 21. My mother did not view herself as responsible for directing and guiding my behavior as I was growing up.

_____ 22. My mother had clear standards of behavior for the children in our home as I was growing up, but she was willing to adjust those standards to the needs of each of the individual children in the family.

_____ 23. My mother gave me direction for my behavior and activities as I was growing up and she expected me to follow her direction, but she was always willing to listen to my concerns and to discuss that direction with me.

_____ 24. As I was growing up my mother allowed me to form my own point of view on family matters and she generally allowed me to decide for myself what I was going to do.

_____ 25. My mother has always felt that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children when they don't do what they are supposed to do as they are growing up.

_____ 26. As I was growing up my mother often told me exactly what she wanted me to do and how she expected me to do it.

_____ 27. As I was growing up my mother gave me clear direction for my behaviors and activities, but she was also understanding when I disagreed with her.

_____ 28. As I was growing up my mother did not direct the behaviors, activities, and desires of the children in the family.

_____ 29. As I was growing up I knew what my mother expected of me in the family and she insisted that I conform to those expectations simply out of respect for her authority.

_____ 30. As I was growing up, if my mother made a decision in the family that hurt me, she was willing to discuss that decision with me and to admit it if she had made a mistake.

Appendix C: Emotions as a Child Scale (EAC; O'Neal & Magai, 2005)
Emotion Socialization Strategies Subscale
Father Version

Instructions: For each of the following statements, use the 7-point scale (1 = *not at all like my father*, 7 = *exactly like my father*) provided to circle the number that best describes how that statement applies to you and your father. Try to read and think about each statement as it applies to you and the relationship you had with your father when you were growing up. There are no right or wrong answers, so don't spend a lot of time on any one item. We are looking for your overall impression regarding each statement. Be sure not to omit any items.

First, we want to make sure you can identify someone in your life who you view as your father or male caregiver. Thinking back to when you were growing up, can you identify someone who you viewed as your father or male caregiver?* (Circle one)

YES **NO**

*If 'yes' the participant will complete this survey; if 'no' then the participant will be directed to the next survey.

Think of times when you felt ***sad*** growing up. When you felt ***sad***, what would your father do?

	Not at all like my father			Sometimes like my father			Exactly like my father
He usually was not around.	1	2	3	4	5	6	7
He usually did not notice.	1	2	3	4	5	6	7
He usually ignored you.	1	2	3	4	5	6	7
He told you not to worry.	1	2	3	4	5	6	7
He joked with you about it.	1	2	3	4	5	6	7
He told you to cheer up.	1	2	3	4	5	6	7
He bought you something you like.	1	2	3	4	5	6	7
He got sad, too.	1	2	3	4	5	6	7
He got all upset.	1	2	3	4	5	6	7
He asked you about it.	1	2	3	4	5	6	7

He understood why you were sad.	1	2	3	4	5	6	7
He comforted you.	1	2	3	4	5	6	7
He helped you deal with the issue.	1	2	3	4	5	6	7
He called you a crybaby.	1	2	3	4	5	6	7
He showed he did NOT like you being sad.	1	2	3	4	5	6	7
He gave you a disgusted look.	1	2	3	4	5	6	7

Think of times you were ***angry*** growing up. When you felt ***angry***, what would your father do?

	Not at all like my father						Exactly like my father
He usually was not around.	1	2	3	4	5	6	7
Most times he did not notice.	1	2	3	4	5	6	7
He ignored you.	1	2	3	4	5	6	7
He told you to change your attitude.	1	2	3	4	5	6	7
He joked with you about it.	1	2	3	4	5	6	7
He told you to keep quiet.	1	2	3	4	5	6	7
He got angry with you.	1	2	3	4	5	6	7
He yelled back at you.	1	2	3	4	5	6	7
He found out what made you angry.	1	2	3	4	5	6	7
He understood why you feel angry.	1	2	3	4	5	6	7
He talked it out with you.	1	2	3	4	5	6	7
He helped you deal with the problem.	1	2	3	4	5	6	7
He told you that you were bad.	1	2	3	4	5	6	7

He punished you.	1	2	3	4	5	6	7
He said you should be ashamed.	1	2	3	4	5	6	7

Think of times you were ***scared*** growing up. When you felt ***scared***, what would your father do?

	Not at all like my father					Sometimes like my father	Exactly like my father
He was usually not around.	1	2	3	4	5	6	7
He didn't notice.	1	2	3	4	5	6	7
He ignored you.	1	2	3	4	5	6	7
He told you not to worry.	1	2	3	4	5	6	7
He joked with you about it.	1	2	3	4	5	6	7
He distracts you.	1	2	3	4	5	6	7
He told you not to be frightened.	1	2	3	4	5	6	7
He got scared himself.	1	2	3	4	5	6	7
He asked you what's wrong.	1	2	3	4	5	6	7
He helped you deal with the situation.	1	2	3	4	5	6	7
He held you.	1	2	3	4	5	6	7
He helped you deal with the problem.	1	2	3	4	5	6	7
He told you to grow up.	1	2	3	4	5	6	7
He punished you.	1	2	3	4	5	6	7
He made fun of you.	1	2	3	4	5	6	7

Think of times you were ***embarrassed*** growing up. When you felt ***embarrassed***, what would your father do?

	Not at all like my father			Sometimes like my father			Exactly like my father
He usually was not around.	1	2	3	4	5	6	7
He didn't notice.	1	2	3	4	5	6	7
He ignored you.	1	2	3	4	5	6	7
He told you not to worry.	1	2	3	4	5	6	7
He joked with you about it.	1	2	3	4	5	6	7
He said not to worry.	1	2	3	4	5	6	7
He said it wasn't worth getting upset about.	1	2	3	4	5	6	7
He felt embarrassed of you.	1	2	3	4	5	6	7
He got upset himself.	1	2	3	4	5	6	7
He asked you about it.	1	2	3	4	5	6	7
He hugged you.	1	2	3	4	5	6	7
He comforted you.	1	2	3	4	5	6	7
He helped you solve the problem.	1	2	3	4	5	6	7
He said you were acting like a baby.	1	2	3	4	5	6	7
He put you down for it.	1	2	3	4	5	6	7
He told you that you are foolish.	1	2	3	4	5	6	7

Appendix D: Eating Attitudes Test (EAT-26; Garner, et al., 1982)

Instructions: For each of the following statements, use the 6-point scale (1 = *never*, 6 = *always*) provided to circle the number that best describes how that statement applies to your behavior. Try to read and think about each statement as it applies to your behavior over the last *three months*. There are no right or wrong answers, so don't spend a lot of time on any one item. We are looking for your overall impression regarding each statement. Be sure not to omit any items.

	Never			Sometimes		Always
1. I engage in dieting behavior.	1	2	3	4	5	6
2. I eat diet foods.	1	2	3	4	5	6
3. I feel uncomfortable when eating sweets.	1	2	3	4	5	6
4. I enjoy eating new and rich foods.	1	2	3	4	5	6
5. I avoid foods with sugar in them.	1	2	3	4	5	6
6. I particularly avoid foods with high carbohydrate content.	1	2	3	4	5	6
7. I am preoccupied with the desire to be thinner.	1	2	3	4	5	6
8. I like my stomach to be empty.	1	2	3	4	5	6
9. I think about burning up calories when I exercise.	1	2	3	4	5	6
10. I feel extremely guilty about eating.	1	2	3	4	5	6
11. I am terrified about being overweight.	1	2	3	4	5	6
12. I am preoccupied with the thought of having fat on my body.	1	2	3	4	5	6
13. I am aware of the calorie contents of my food.	1	2	3	4	5	6
14. I have the impulse to vomit after meals.	1	2	3	4	5	6
15. I vomit after I have eaten.	1	2	3	4	5	6

	Never			Sometimes		Always
16. I have gone on eating binges where I feel I am not able to stop.	1	2	3	4	5	6
17. I give too much time and thought to food.	1	2	3	4	5	6
18. I find myself preoccupied with food.	1	2	3	4	5	6
19. I feel that food controls my life.	1	2	3	4	5	6
20. I cut my food into small pieces.	1	2	3	4	5	6
21. I take longer than others to eat my meals.	1	2	3	4	5	6
22. Other people think I am too thin.	1	2	3	4	5	6
23. I feel that others would prefer if I ate more.	1	2	3	4	5	6
24. I feel that others pressure me to eat.	1	2	3	4	5	6
25. I avoid eating when I am hungry.	1	2	3	4	5	6
26. I display self-control around food.	1	2	3	4	5	6

Appendix E: Permission to Replicate the EAT-26

Thank you for your permission request to reproduce and use the EAT-26. The EAT-26 is protected under copyright; however, all fees and royalties have been waived because it has been our wish for others to have free access to the test.

Please consider this e-mail as granting you permission to reproduce the test for the purpose suggested in your request as long as the EAT-26 is cited properly. The correct citation is: "The EAT-26 has been reproduced with permission. Garner et al. (1982). The Eating Attitudes Test: Psychometric features and clinical correlates. Psychological Medicine, 12, 871-878."

You can download a copy of the scoring instructions and the test on the homepage of the EAT-26 website. If you use the written version of the test, it is recommended that you provide respondents with the link to the EAT-26 website (www.eat-26.com) so that they can learn more about the test.

Again, thank you for requesting permission to reproduce and use the EAT-26. If you intend on publishing your work, please send me your results so that they can be included in a research database being developed on the EAT-26 website (www.eat-26.com).

Best wishes,

David M. Garner, Ph.D.
Administrative Director
River Centre Clinic
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Appendix F

IRB Approval Form

Oklahoma State University Institutional Review Board

Date:	Tuesday, March 11, 2014
IRB Application No	ED1416
Proposal Title:	The Effects of Emotion Socialization and Parenting Style on Eating Disorder Symptomology
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved **Protocol Expires: 3/10/2017**

Principal Investigator(s):

Rachel Y. Kaufman
2419 Main Hall
Tulsa, OK 74106

Al Carlozzi
MH 2415, 700 N. Greenwood
Tulsa, OK 74106

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

☒ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1.Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms
2.Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3.Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4.Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Cordell North (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,

Shelia Kennison, Chair
Institutional Review Board

Appendix G

Extended Literature Review

Eating disorders and other weight-related diagnoses have received an increasing amount of attention in the last few decades as more and more individuals struggle with weight-related health risks and complications. The National Eating Disorder Association (NEDA, 2013) reports that the number of eating disorder cases has consistently risen since the 1950s. Research has begun to examine what factors are contributing to this increase in eating disorder diagnoses, but results have been limited. More research is needed to discover what environmental and social factors are related to eating disorder symptomology within young adults, the primary age group affected by eating disorder diagnoses. The present review will examine eating disorder diagnoses, etiology, and treatment as well as two family dynamic variables that have the potential to influence eating disorder development.

Eating Disorders

In the United States, eating disorders affect over 20 million women and 10 million men at some point during their lifetime (NEDA, 2013). The American Psychiatric Association (2013) recognizes three main diagnostic categories when examining eating disorders: Anorexia nervosa, Bulimia nervosa, and Binge-eating disorder. In this section, each of these diagnoses will be discussed separately in terms of their diagnostic criteria, prevalence, development, and prognosis.

Anorexia nervosa. A diagnosis of anorexia nervosa is characterized by (1) a restriction of energy intake relative to requirements, leading to a significantly low body

weight; (2) an intense fear of gaining weight or of becoming fat, or persistent behavior that interfere with weight gain; and (3) a disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight (American Psychiatric Association, 2013). Additionally, there are two different subtypes within the anorexia nervosa diagnosis. The first subtype is the *restricting type* and describes weight-loss behavior that is primarily accomplished through dieting, fasting, and/or excessive exercise in the past three months. The second subtype, *binge-eating/purging type*, describes recurrent episodes of binge eating or purging behavior such as self-induced vomiting or the misuse of laxatives, diuretics, or enemas over the past three months. It is not uncommon for individuals to cross over between the subtypes throughout the course of the diagnosis, so monitoring these symptoms and focusing on the three months prior to assessment is essential for an accurate diagnosis.

According to the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (American Psychiatric Association, 2013), anorexia nervosa typically develops during late adolescence or early adulthood and rarely begins before puberty or after the age of 40, although cases have been documented within both of these age groups. The 12-month prevalence of anorexia nervosa among young females is 0.4 percent and it is diagnosed far more often in females than males, reflecting a 10:1 ratio of females to males in clinical populations. Individuals who are suffering from this diagnosis typically are extremely underweight and thus, many are encouraged or referred to treatment by other people based on their outward appearance.

Treatment of anorexia nervosa, as well as all eating disorders, can be long-term as most individuals with this diagnosis experience reoccurrence of symptoms within five years of the initial diagnosis (American Psychiatric Association, 2013). The mortality rate for individuals with anorexia nervosa is approximately five percent per decade, with the most common causes for death being suicide and medical complications associated with the disorder. Individuals with anorexia nervosa may also experience other mental health and medical disorders such as anxiety, depression, bipolar, substance abuse, gastrointestinal disease, and hyperthyroidism, which can also exacerbate treatment and recovery.

Most individuals who are diagnosed with anorexia nervosa receive in-patient or out-patient behavioral health treatment conducted by mental health professionals. While most of this treatment is delivered through individual treatment modalities, research has examined the effects of family-based therapy treatment for anorexia nervosa with adolescents. le Grange and Eisler (2008) conducted a meta-analysis of family therapy options for anorexia nervosa treatment and found that between 50 percent and 75 percent of adolescents who participated in family treatment were restored to a normal weight level and at a four- to five-year follow-up, between 60-90 percent of the adolescents had fully recovered, as compared to inpatient treatment where the recovery rates vary between 33 percent and 55 percent. It appears from this review that family therapy is an asset to adolescent anorexia nervosa treatment and provides evidence for the role in which family dynamics can play in the development as well as the recovery of anorexia nervosa.

Bulimia nervosa. A diagnosis of bulimia nervosa is characterized by (1) recurrent episodes of binge eating where an individual eats an amount of food that is definitely larger than what most individuals would eat in a similar period of time and the individual experiences a lack of control over eating during the episode; (2) recurrent inappropriate compensatory behaviors in order to prevent weight gain, such as self-induced vomiting, misuse of laxatives, fasting, or excessive exercise; (3) the binge eating and inappropriate compensatory behaviors both occur, on average, once a week for the past 3 months; (4) self-evaluation is disproportionately influenced by body shape and weight; and (5) the disturbance does not occur exclusively during episodes of anorexia nervosa (American Psychiatric Association, 2013). Unlike individuals with anorexia nervosa, individuals with bulimia nervosa usually have a body mass index (BMI) within the normal or overweight range so distinguishing these individuals by their appearance is not practical.

The prevalence rate of bulimia nervosa among young females in a 12-month period is between 1 and 1.5 percent (American Psychiatric Association, 2013). Women are much more likely to be diagnosed with this disorder with a 15:1 ratio of women to men with a bulimia nervosa (Herpertz-Dahlmann, 2008). This disorder typically begins in adolescence or young adulthood with onset before puberty or after the age of 40 being very uncommon. Although the health risks and medical complications are not as common in individuals with bulimia nervosa as with anorexia nervosa, the mortality rate for bulimia nervosa is about two percent per decade.

Like other eating disorder diagnoses, comorbidity with other mental health disorders is common. For individuals with bulimia nervosa, anxiety, substance abuse,

and mood disorders, such as bipolar and depression, can occur in conjunction with the symptoms of bulimia. Additionally, these comorbid disorders can be pre-existing and thus influence the development of this disorder. While disordered eating behaviors typically last for several years in a majority of bulimia nervosa patients, treatment options have demonstrated a high level of efficacy in reducing symptomology. Cognitive-behavioral therapy has been utilized with an adult population of patients with bulimia nervosa and was found to be superior in efficacy to other psychological interventions and medications (Grave, 2011). Patients in these randomized trials who received cognitive-behavioral therapy demonstrated substantial improvement and up to half the patients made a complete recovery from the disorder. Treatment options have been most beneficial when the emotional, physical, and cognitive aspects of the disorder have all been addressed.

Binge-eating disorder. A diagnosis of binge-eating disorder is characterized by (1) recurrent episodes of binge eating with an episode consisting of eating, in a discrete period of time, an amount of food that is definitely larger than what most people would eat in a similar period of time and a sense of lack of control over eating during the episode; (2) the binge-eating episodes are associated with at least three of the following: (a) eating much more rapidly than normal, (b) eating until feeling uncomfortably full, (c) eating large amounts of food when not feeling physically hungry, (d) eating alone because of feeling embarrassed by how much one is eating, or (e) feeling disgusted with oneself, depressed, or very guilty afterward; (3) marked distress regarding binge eating is present; (4) the binge eating occurs, on average, at least once a week for three months; and (5) the binge eating is not associated with the recurrent use of inappropriate

compensatory behavior an in bulimia nervosa and does not occur exclusively during the course of bulimia nervosa or anorexia nervosa (American Psychiatric Association, 2013). Binge-eating disorder is distinct from obesity and can occur in individuals who are normal weight, overweight, or obese.

Unlike anorexia nervosa and bulimia nervosa, binge eating disorder occurs much more evenly for female and male individuals. The 12-month prevalence rate of binge-eating disorder is 1.6% for females and 0.8% for males above the age of 18. Binge-eating disorder can also be comorbid with mood disorders, anxiety disorders, and substance abuse disorders (American Psychiatric Association, 2013). Because binge-eating disorder is a relatively new diagnosis, much less research exists on the development and course of this disorder compared to other eating and feeding-related disorders. However, we do know that binge-eating disorder has a higher reoccurrence rate than either bulimia nervosa or anorexia nervosa and this is consistent for individuals who receive treatment and those who do not.

Factors influencing eating disorder development. While genetic factors play a role in the development of eating disorders, much more research has focused on environmental factors with the goal of preventing these risk factors in the future. Media sources have been blamed for promoting a societal ideal of a physically fit and thin body type, which have been reportedly related to body dissatisfaction among females. Body dissatisfaction has been shown to be a highly significant risk factor for adolescent girls to develop eating disorder symptomology in the future and this risk was amplified when combined with elevated symptoms of depression (Stice, Marti, & Durant, 2011). While media images and messages might contribute to body dissatisfaction, not every individual

develops an eating disorder from being exposed to the media. As Stice and colleagues' findings indicate, it may be a combination of emotional and environmental factors that predict eating disorder development.

Research on environmental factors related to eating disorder development has examined family dynamics such as parental modeling of eating behavior and the relationship between eating disorder diagnoses in parents and then the development of these symptoms in their children (Timini & Robinson, 1996). An additional area of research involves an individual's adjustment to life stressors and emotional regulation strategies. Mazzeo and Bulik (2008) provided a review of these variables in terms of eating disorder development and reported that individuals who are less skilled at tolerating stress and regulating their emotions were more likely to have eating disorder symptomology. In fact, the enhancement of emotion regulation skills was shown to be a preventative buffer against eating disorder symptomology. This is coupled with the findings from a review by Shaw, Stice, and Becker (2008) outlining successful eating disorder prevention programs for adolescents. These authors reported that one of the features of successful eating disorder prevention programs was the incorporation of interventions that targeted negative affect in addition to body dissatisfaction and unhealthy dieting. This seems to make sense given that a common characteristic of all three of the major eating disorder diagnoses is the comorbidity with other mental health disorders such as bipolar disorders, depressive disorders, anxiety disorders, which all affect emotions and mood.

This line of research indicates an emotional component of eating disorder etiology. Emotion regulation strategies can be learned throughout the course of an

individual's life, but they are often modeled for children within a nuclear family system (Mazzeo & Bulik, 2008). Future research in this area should continue to examine emotional regulation strategies that are fostered within a family system in relation to eating disorder symptomology and pathology. Emotion socialization strategies within a family system will be discussed in more detail in a later section of this review. The following section will first examine a family dynamic variable that is also related to eating disorders and emotional regulation.

Parenting Style

Parenting style was conceptualized in the early 1970s by Baumrind (1971) and has played a significant role in the child development research ever since. Baumrind (1966; 1971) originally defined three distinct parenting styles based on her observations and research, but later updated to include a fourth parenting style (1991). Baumrind (1966; 1971; 1991) conceptualized parenting style based on two dimensions of authority: demandingness and responsiveness. The dimension of *demandingness* refers to the discipline and expectations a parent has for their child and how they enforce these demands to their child; the dimension of *responsiveness* refers to the level of support and individuality that a parent fosters for their children (Baumrind, 1991). Parenting style can be measured on each of these dimensions yielding either a high or a low score to create four orthogonal groups. Each one of these groups can be identified as one of four parenting styles: authoritative, authoritarian, permissive, and rejecting-neglecting (disengaged).

Baumrind (1971; 1991) provided definitions for each of the four distinct parenting styles. *Authoritative* parents typically score high on both the demandingness and the

responsiveness dimensions of parenting behaviors. While they are demanding, they also value the rights of their children and use reasoning over physical punishment. Authoritative parents will often control their children by explaining rules or decisions and by reasoning through a two-way conversation style rather than dictating to their children the rules without any explanation or room for compromise. Authoritative parents also set high standards for their children's behavior and encourage independence in a supporting environment. Contrastingly, *authoritarian* parents have been found to be high on the demandingness dimension but low on the responsiveness dimension. They value obedience and order, and they provide a clear set of rules and monitor their children's behavior closely. These parents are very status-oriented and often believe that their rules should be followed simply because they are the authority. While authoritative parents use reasoning and are free to talk openly with their children, authoritarian parents are more likely to use punitive measures and not encourage verbal exchange between themselves and their children. *Permissive* parents are low on the demandingness dimension but high in the responsiveness dimension. While they foster self-regulation and a considerable amount of independence within their children, they lack rules or expectations and they avoid confrontation with their children. Often permissive parents believe that their children should learn through their own experiences and thus, they give their children a lot of freedom to determine their own activities. However, permissive parents often do not demand the same levels of achievement or mature behavior that authoritative or authoritarian parents do. Finally, *rejecting-neglecting* (sometimes referred to as *disengaged*) parents are low on both dimensions of parenting style. These characteristics typically involve failing to provide structure or support for their children

in either an actively rejecting or neglecting pattern of behavior. Many of these parents may completely fail to embrace their roles and responsibilities as a parent altogether.

Parenting style and health behaviors. Previous research has examined the relationship between parenting style and health-related variables. Fuemmeler and colleagues (2012) conducted a longitudinal study to assess the relationship between participants' perceptions of their caregivers' parenting style and their body mass index (BMI) during adolescence and into adulthood. The researchers assessed parenting style with a sample of over 20,000 adolescents who participated in the National Longituidal Study of Adolescent Health. Fuemmeler and colleagues tracked the participants' BMI during three waves of assessments that spanned an 11-year period. The mean age of participants during the first wave of assessments was 15.65 years and the mean age of participants during the third wave of assessments was 22.96 years. The researchers discovered that authoritarian and dismissive parenting styles were associated with greater increases in BMI and that no significant gender or racial differences emerged. While BMI from participants who reported authoritative parenting styles from their caregivers leveled off over time, those who had less support from their parents did not experience this trajectory. This indicates that parenting styles that do not provide responsiveness but do have strict expectations may inhibit adolescents and young adults from regulating their weight during this transition period.

Additionally, Berge, Wall, Loth, and Neumark-Sztainer (2010) conducted a longitudinal study that examined parenting style, adolescent weight, and weight-related behaviors at two points in time. In this study, adolescents rated their perceptions of their parents' parenting style at time 1 (mean age = 12.8 years) and then they reported their

BMI, dietary intake, and physical activity levels at time 2 (mean age = 17.2 years). Results indicated that a *maternal* authoritative parenting style predicted a significantly lower BMI than authoritarian, permissive, or neglectful parenting styles for both males and females at the time 2 data collection. A permissive *paternal* parenting style predicted more fruit and vegetable intake in females at time 2 data collection. Consistent with the preceding study, an authoritative parenting style, characterized by high responsiveness and demandingness, seems to be related to healthy weight-related outcomes in adolescents. Similar associations have been found when examining parenting style with eating disorder pathology.

Parenting style and eating disorder development. While the parenting style that caregivers utilize with their children might influence eating disorder pathology within the children, research has also shown that when parents themselves experience eating disorder symptoms it could be related to their own choice of parenting style. Haycraft and Blissett (2010) examined eating disorder pathology in 105 mothers (mean age = 35 years) to determine if eating disorder pathology was related to a certain parenting style. The researchers found that eating disorder symptoms were not significantly related to an *authoritative* parenting style. They also discovered that several categories of eating disorder symptoms such as drive for thinness, body dissatisfaction, and bulimia were related to *authoritarian* and *permissive* parenting styles. This indicates that if a mother is experiencing symptoms of an eating disorder herself, the amount of control she uses while parenting can be affected. This could then affect the child's development of eating disorder behaviors through modeling disordered eating behaviors as well as through the support and control delivered within the parent-child relationship.

This direct parent-child relationship has also been researched in terms of eating disorder symptomology. Goossens, Braet, Van Durme, Decaluwé, and Bosmans (2012) examined attachment between parents and children in relationship to disordered eating attitudes and behavior and weight status. The participants in this study were 688 children (mean age = 9.05 years) during the first assessment and 601 children in the second assessment which was conducted one year later. The researchers found that an insecure attachment between the mother and children significantly predicted increases in food restraint, eating concerns, shape concerns, weight concerns, and BMI a year later for both boys and girls (Goossens et al., 2012). This increase occurred even after adjusting the BMI to make comparisons between children of different ages or gender and to accommodate for the natural growth process that likely occurs within a year for children. While the participants in this sample were quite younger than the participants for the proposed study, the results from Goossens et al. provides evidence for the impact that parenting practices can have on weight- and eating-related behaviors in the future.

Kluck (2008) examined family dynamic factors in a sample of college women (mean age = 18.82) and discovered findings that also support the role that families can have on disordered eating behaviors. In this study, Kluck examined family dynamic variables such as bonding, adaptability, cohesion, and communication in relationship to disordered eating behaviors as measured by the Eating Attitudes Test (EAT; Garner, Olmsted, Bohr, & Garfinkel, 1982). Kluck found that variables indicating family dysfunction, such as problems with communication, lack of cohesion, lack of adaptability, and parental control, were associated with increased problematic eating behaviors.

Several other studies have examined the direct parent-child relationship as defined by Baumrind's (1971; 1991) parenting styles. Enten and Golan (2009) wrote one of the first research studies examining eating disorder patients' perceptions of their caregivers' parenting styles. For this clinical sample of eating disorder patients, overall eating disorder symptomology was positively related with the patient's perceptions of their father as authoritarian and negatively related to their perceptions of their father as authoritative (Enten & Golan, 2009). Not only does this study indicate a cross-gender relationship between perceptions of parenting style and the development of eating disorders, but it again indicates that authoritative parenting practices might be a preventative factor against eating disorder symptomology in adolescents and young adults.

Similar findings were demonstrated by Jauregui Lobera, Bolanos Rios, and Garrido Casals (2011). These researchers examined perceptions of caregivers' parenting style in a sample of 70 eating disorder patients (mean age = 21.30 years) who were receiving out-patient treatment at the time of data collection. Among these eating disorder patients, the most common parenting style reported by the participants was an authoritarian parenting style, which involves low care and support but a high amount of demands and control. Although the participants in this study were young adults, they were asked to think about the first 16 years of their life when assessing their parents' discipline and support styles. This indicates that experiencing high demands from parents during childhood and adolescence may be related to developing eating disorder symptomology during late adolescence and early adulthood.

Overall, previous research has looked at parenting style and the development of eating disorder symptomology but this area of research is relatively limited. It seems that there may be initial evidence to support a relationship between authoritarian parenting practices and eating disorder development in children and adolescents as well as the benefits of authoritative parenting practices for the prevention of eating disorder pathology. However, much more research is needed to solidify these relationships and define any predictive or causal associations between parenting style and eating disorder pathology.

Emotion Socialization

As mentioned during the previous discussion of eating disorder symptomology, emotional regulation strategies can present as a risk factor or a preventative buffer for the development of eating disorders (Mazzero & Bulik, 2008). Emotion regulation can also affect individuals' ability to cope with the mood disorders that often occur concurrently with eating disorder symptoms. Courtney, Gamboz, and Johnson (2008) examined self-esteem and depression in relationship to disordered eating behaviors in a sample of adolescents. These researchers measured problematic eating behaviors at two time periods approximately ten months apart and discovered that problematic eating behaviors at time one were positively related to low self-esteem, depression symptomology and problematic eating behaviors at time two. Low self-esteem was also significantly related to problematic eating behaviors at time two; however this relationship did not remain significant after controlling for depressive symptoms. Thus, depressive symptoms mediated the association of low self-esteem and eating behavior problems. It seems that if adolescents were able to effectively regulate their emotions, the relationship between

low self-esteem and problematic eating behaviors might be improved. The ability to regulate emotions often stems from the emotion socialization practices that are modeled for children and adolescents within a nuclear family setting.

Emotion socialization can be defined as parental patterns of behavioral and emotional reactions in response to emotional expression by children and adolescents (O'Neal & Magai, 2005). O'Neal and Magai conducted a study examining emotion socialization practices within 161 children (mean age = 12.35 years) and the proposed study will replicate aspects of their methodology. These researchers operationally defined each of five emotion socialization strategies as followed:

- Punish: a parent discourages a child's emotion expression by showing disapproval of the child's emotion and/or mocking the child for expressing an emotion.
- Neglect: a parent ignoring the child's emotion expression or not being available.
- Override: a parent silencing a child's expressed emotion by dismissing or distracting the child.
- Magnify: a child expresses an emotion and the parent subsequently responds to the child by expressing the same emotion with equal or stronger intensity.
- Reward: a parent provides comfort, empathizes, and helps the child solve his or her problems.

These emotion socialization strategies were examined in relationship to externalizing and internalizing psychopathology in the participants. The researchers found that each of the negative emotion socialization strategies (e.g. punish, neglect, override, & magnify) were positively related to both externalizing behaviors and internalizing behaviors in children,

with the exception of override which was only positively related to internalizing behaviors.

These five emotion socialization strategies, as adopted from O'Neal and Magai (2005) will be used to assess emotion socialization strategies in the nuclear families of the participants in the proposed study. It appears that emotion socialization practices can have an impact on the development of external and internal psychopathology, and thus would likely demonstrate a relationship with eating disorder symptomology which are considered internalizing behaviors. The research literature examining the role of emotions, either as they influence the development of an eating disorder or how they influence the treatment of an eating disorder, provides additional evidence for why these emotional socialization practices might be related to eating disorder symptomology. However, there is no research to date that examines these five specific emotion socialization practices in association with eating disorder symptomology.

Conclusion

Previous research has shown that relationships between family dynamic variables and the development of eating disorder symptomology have emerged. While several associations have been discovered, the field of research examining eating disorder pathology and family dynamics is relatively small. The present study continued this line of research by examining parenting style, emotion socialization, and eating disorder symptomology within a clinical and non-clinical population. This study contributes novelty to the research literature by combining two variables that have not been previously studied together in relationship to disordered eating. This study also adds to the literature by investigating these variables in both a clinical and non-clinical sample.

Results from this study shed insight onto what family dynamic variables tend to be risk factors for eating disorder pathology and what variables might serve as preventative factors to lessen the incidence of eating disorder diagnoses and symptoms among adolescents and young adults. Overall, the present study provides valuable information to inform eating disorder treatment and prevention practices for the future.

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