THE INFLUENCE OF MOTHERS' PARENTING STYLES ON TODDLERS' DSM-RELATED SYMPTOMS

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THE INFLUENCE OF MOTHER'S PARENTING STYLE ON TODDLERS' DSM-ORIENTED OUTCOMES

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TABLE OF CONTENTS

Chapter Page

I. INTRODUCTION 1

II. REVIEW OF LITERATURE 4

Parenting Styles 4
Preschool Precursors of Clinical Symptoms in Children 9
Rationale and Hypotheses 16

III. METHODOLOGY 19

Participant Recruitment 19
Participants 19
Design and Procedure 20
Measures 20

IV. RESULTS 24

Correlations 25
Multiple Regression Analysis 26

V. DISCUSSION 30

Parenting Styles 30
Limitations 33
Conclusions 34

REFERENCES 36

APPENDICES 45

LIST OF TABLES

Table Page

1. Means, Standard Deviations, and Ranges for Study Variables 22

2. Correlations Between PSDQ Variables and Wave-2 DSM-Oriented Scales.....24

3. Standardized Regression Coefficients (β) Predicting Wave-2 DSM-Related Scores from PSDQ Variables, With and Without Controls for the Wave-1 DSM-Related Scores 26

CHAPTER I

INTRODUCTION

The purpose of this study is to assess the extent to which mothers' parenting influences later child symptomology as assessed by the DSM-oriented scales of the Child Behavior Checklist (CBCL/1½-5; Achenbach & Rescorla, 2000). Many studies have shown that child personality and health outcomes vary by parenting style (e.g., Steinberg, 2001). However, there is minimal information pertaining to how parenting styles are related to potential diagnostic outcomes for children, especially for young preschoolers. Campbell, Shaw and Gilliom (2000) state that child behavior problems such as impulsivity, hyperactivity, aggression and noncompliance are more likely when there is a poor mother-child relationship. This dysfunctional relationship is marked by ineffective discipline and limited maternal warmth which are characteristics of either authoritarian or permissive parenting styles, or both (Campbell et al., 2000). Authoritarian parents are lower in warmth and likely to be ineffective due to harsher disciplinary techniques. Permissive parents are more likely to be ineffective and inconsistent in their parental discipline (Campbell et al., 2000; Harnish, Dodge, & Valente, 1995; McLoyd, 1998; Patterson, Debaryshe, & Ramset, 1989). Gross, Sambrook, & Fogg state that the parent-child relationship is the most important environmental influence on behavior problems in children, especially in the preschool years (1999).

Although much of the research focuses on behavioral problems in older children, there is a need to understand the development of disorders in preschool age children, especially to inform early interventions. Negative or positive parent-child interactions

that lead to childhood disorders are already apparent by four years of age. Earlier identification could benefit parents and practitioners by allowing for the use of preventative interventions. Therapeutic insight may also be gained by understanding the link between parenting styles and DSM-related child symptoms which can influence further research and interventions (Smith, Calkis, Keane, Anastopoulos, & Shelton, 2004). Keenan, Shaw, Delliquadri, Giovannelli, and Walsh (1998) suggest that the developmental precursors that are associated with behavioral and emotional problems can be identified within the first two years following birth and that problems recognized within the first year may predict future disorders (Keenan et al., 1998). This research suggests that mothers' parenting styles may be a key influence of child outcomes such as affective disorders, anxiety problems, oppositional defiance, pervasive developmental problems and attention deficit and hyperactivity symptoms (e.g., Campbell et al., 2000; Harnish, Dodge, & Valente, 1995; McLoyd, 1998; Patterson, Debaryshe, & Ramset, 1989).

A more in-depth understanding of the association between parenting styles and DSM-related outcomes is needed in order to enhance the accurate dissemination of knowledge to the general public as well as to inform therapeutic treatment of families and to guide appropriate interventions. The goal of this study therefore examines the relationship between parental styles and DSM-related symptoms in toddlers from 18 to 30 months of age. Data from this study will assess correlations between parental styles and child outcomes. Regression analyses will also be used to assess which relationships are most significant after controlling for other parenting styles. The analyses will also investigate whether parenting styles predict changes in DSM-related symptoms after

controlling for initial scores on the same scales. This will provide stronger causal evidence than correlations, although it will fall short of being causally definitive. Better understanding of these relationships will help clinicians and researchers help parents combine parental discipline and nurturance in a way that will facilitate their children's optimal development.

CHAPTER II

REVIEW OF LITERATURE

As background for this study, this chapter summarizes the conceptualization and representative research on three prototypical parenting styles and then discusses preschool precursors of clinical diagnoses and their importance for the early prevention of mental health problems. The chapter then concludes with specific hypotheses to be tested in this study.

Parenting Styles

Baumrind's identification of the permissive, authoritarian, and authoritative parenting styles has been called the most significant and lasting typology of parenting (Bugental & Grusec, 2006). Her first publication identified three parenting patterns that were correlated with specific child outcomes (Baumrind, 1967; Baumrind, 1973), which she termed authoritarian, authoritative and permissive parenting (Baumrind, 1973). Research consistently indicates that more positive child outcomes have been associated with authoritative parenting than with authoritarian and permissive parenting styles (Bugental & Grusec, 2006; Steinberg, 2001).

Permissive. Permissive parents are warm and affectionate, but exert minimal control over their children (Wolfradt, Hempel, & Miles, 2003). According to Baumrind, these parents rarely attempt to exercise control, and rely on reasoning when they do try to influence their children. Parents present themselves as resources to their children and are

generally accepting of their children's impulses and wants (Baumrind, 1966; Larzelere, 1998). In previous research it has been shown that permissive parenting is associated with various negative child outcomes, such as aggression (Rubin, Hastings, Chen, Stewart, & McNichol, 1998) and oppositional defiant disorder (Cunningham & Boyle, 2002).

Permissive mothers are less likely to place controls on their children's negative behavior and are less likely to use positive reinforcement. This lack of effective parenting may instigate toddler behavior problems, including oppositional defiant disorder (Cunningham & Boyle, 2002). Lamborn, Mounts, Steinberg, & Dornbusch, (1991) explored differences within permissive parenting, separating permissive parents into neglectful and indulgent subgroups. Children of neglectful permissive parents were recognized as faring poorly in various areas including competence, self-perceptions, misbehavior, and psychological distress. Children of indulgent permissive parents suffered from somatic distress more often than children of authoritarian or authoritative parents. Children of both indulgent and neglectful parents were also more likely to use drugs and alcohol. These adolescents also showed a high frequency of school misconduct, such as cheating, copying homework, and tardiness (Lamborn et al., 1991). This complements findings from Jewell and Stark (2003), which indicated that children in families where parents are characterized as permissive were found to be more likely to meet the diagnostic criteria for conduct disorders.

Authoritarian. Parents who are classified as authoritarian are characterized as high in control and low in warmth (Wolfradt et al., 2003). They are rarely affectionate towards their children and enforce stringent commands. Authoritarian parents also use strict and forceful measures in their discipline and value obedience. These parents restrict

their children's autonomy, rarely allow negotiation, and use punitive measures when children disagree with parental beliefs (Baumrind, 1966). Psychological control is frequently used as a means for obtaining obedience which is often perceived by children as passive aggressive, intrusive and overprotective, leaving minimal opportunity for parents and children to build a trusting relationship (Steinberg, 2001). Authoritarian parents also believe that their word should be accepted as right and do not encourage negotiation, which may be perceived as hurtful to the parent-child relationship (Baumrind, 1966).

Whereas permissive parenting is associated with the development of oppositional defiant behaviors in children, authoritarian parenting is associated with aggressive and antisocial behaviors. Negative parenting techniques that are harsh, coercive and nonresponsive may cause antisocial behaviors in children (Lahey, Waldman, & McBurnett, 1999; Campbell, Shaw, & Gillion, 2000; O'Leary, Smith Slep, & Jamila Reid, 1999). Permissive and authoritarian parents are both ineffective in their discipline techniques, but in different ways. This may suggest a link between aggressive, antisocial behaviors and disciplinary control utilized by parents. Rubin et al. (1998) support this proposal through their research which found that children of both permissive and authoritarian parents displayed increased aggression (Rubin et al., 1998). Authoritarian parenting is also associated with other adverse child DSM-related symptoms and has minimal benefits to children (Baumrind, 1966; Hinshaw, 2002; Wolfradt et al., 2003).

Child outcomes of authoritarian parenting have included both externalizing and internalizing behavior problems. Child outcomes have included personality problems and hostile withdrawal or acting out (Baumrind, 1966; Wolfradt et al., 2003). In previous

studies, findings have also shown that children of authoritarian parents tend to have high levels of anxiety (Wolfradt et al., 2003). In a meta-analysis by Gerlsma, Emmelkamp, and Arrindell (1990), it was found that children whose parents implemented minimal affection and increased levels of control were likely to meet diagnostic criteria for phobic disorders such as obsessive compulsive disorder, neurotic, and depression. Along with a potential link between parenting styles and depression, Hinshaw (2002) found that parents of girls with attention deficit hyperactivity disorder (ADHD) were more likely to use authoritarian parenting techniques. It was not clear, however, whether or not authoritarian parenting causes ADHD or the challenges of parenting an ADHD child influences a parent to utilize harsher discipline and be less affectionate (Hinshaw, 2002).

There are positive outcomes related to authoritarian parenting as well. Children of authoritarian parents have performed well in school by maintaining higher grade point averages, felt competent in school work, and reported a positive attachment to school. These children are also less likely to participate in problem behaviors, such as drug or alcohol use. In the same study, however, results indicated that these children show difficulties in their self-confidence, specifically self-reliance and individual perceptions of abilities related to academics and social skills. This suggests that children of authoritarian parents view themselves as having a difficult time making friends and do not view themselves as popular. These children are also more likely to feel unable to make decisions on their own (Lamborn et al., 1991). While permissive and authoritarian parenting styles are both related to mostly unfavorable child outcomes, authoritative parenting is linked with more favorable outcomes.

Authoritative. Authoritative parents encourage negotiation, and often provide reasoning along with disciplinary actions. These parents exercise firm control as well as providing their child with opportunities towards individual growth (Baumrind, 1971). Similar to authoritarian parenting, authoritative parenting is also high in control, but is high in warmth as well (Wolfradt et al., 2003). These parents use firm control but allow negotiation and disagreement with their children. Authoritative parents are involved, have developmentally reasonable expectations, and enforce consistent discipline. There is an emphasis on nurturance as well as firm control (Baumrind, 1966; Larzelere, 1998; Steinberg, 2001). Authoritative parents also demonstrate autonomy granting behaviors in their parenting which is also understood as a protecting factor, safeguarding children from the development of internalized problems, such as anxiety. It is well known that authoritative parenting is highlighted as being the most favorable parenting style with beneficial child outcomes, such as higher self-esteem, less depression, and increased school achievement (Steinberg, 2001).

As previously mentioned, research findings suggest that children of authoritative parents fare better than children of permissive or authoritarian parents. Steinberg (2001) ascertains that young children of authoritative parents are more psychologically healthy than children who are raised in authoritarian or permissive homes (Steinberg, 2001). In a study by Lamborn et al. (1991), findings suggested that children's competence and confidence in their abilities and achievements were higher when raised by an authoritative parent. These findings also suggested that these children were less likely to participate in deviant behaviors. Further research has shown that when mothers utilize high behavioral control and low psychological control, which is typical of authoritative

parents, children showed decreases in externalizing problem behaviors (Aunola & Nurmo, 2005). Baumrind, Larzelere, and Owens (2010, in press) found that authoritative parenting during preschool led to greater adolescent competencies and fewer internalizing problems ten years later, especially compared to early authoritarian parenting. Although many studies have linked parenting styles with child outcomes, little research has examined the relationship between parenting styles and early indicators of child clinical symptoms, such as depression and ADHD.

Preschool Precursors of Clinical Symptoms in Children

Effective parenting is considered crucial for preventing the development of mental health problems in children. Gross, Sambrook, and Fogg (1999) found that, according to the Eyberg Child Behavior Inventory (Robinson, Eyeberg & Ross, 1980), 31.6% of 3-year-old children showed significant behavior problems. This suggests the need to identify precursors of clinical symptoms in children at even younger ages to understand how parenting might contribute to the development of those problems and prevent them.

Although only a few clinical diagnoses are considered reliable in toddlers, the Child Behavior Checklist for 1½- to 5-year-olds (CBCL/1½-5; Achenbach & Rescorla, 2000) has been adapted to measure five sets of symptoms associated with clinical diagnoses in the American Psychiatric Association's Diagnostic Statistical Manual of Mental Disorders (Fourth Edition, 1994; DSM-IV). By using the DSM-oriented scales of the CBCL/1½ - 5, researchers and practitioners can accurately and consistently assess early precursors of a range of childhood disorders. The DSM-oriented scales for the CBCL/1½-5 were constructed in order to better meet the needs of practitioners and

researchers who work with preschoolers. The scoring system was derived by psychiatrists and psychologists who judged each item as "very consistent with DSM-IV diagnostic categories" (Achenbach & Rescorla, 2000). DSM categories included on the DSM-oriented scales of the CBCL/1½ - 5 include affective problems, anxiety problems, attention-deficit/hyperactivity problems, oppositional defiant problems, and pervasive developmental problems, such as Asperger's disorder (Rescorla, 2005). Each category of the DSM-oriented scales of the CBCL/1½ - 5 is reviewed below along with a brief review of child symptomology.

Affective problems. The affective problems scale consists of symptoms consistent with major depressive disorder and dysthymic disorder (Achenbach & Rescorla, 2000). Symptoms of depression in toddlers may include lethargy, eating problems, difficulty sleeping, inattention, irritableness, frequent crying, and being less affectively responsive than other toddlers. These toddlers may also show signs of separation anxiety and are more likely to be socially withdrawn (Carlson & Kashani, 1988; Field, 1984; Gartstein & Bateman, 2008). Kashani and Carlson (1987) found that clinically referred preschoolers were also more likely to complain of somatic pains such as headaches, chest or abdominal pain. Within the same study, a relationship between physical abuse or neglect was strongly associated with preschoolers' symptoms of major depression (Kashani & Carlson, 1987).

Previous research on depression in toddlers found that many mothers of depressed toddlers suffered from symptoms of depression and suggested that toddlers' imitation of symptomology may account for later affective disorders (Field, 1987; Field, 1989; Gartstein & Bateman, 2008). Depressed mothers may also influence their children by the

form of parenting they utilize in their everyday interactions with them. Previous research found that mothers who were able to provide their children with warmth and demonstrated low levels of psychological control had children who fared better than mothers who exhibited low warmth and higher levels of control (Brennan, LeBrocque, & Hammen, 2003). Gartstein and Fagot (2003) found that parental depressive symptoms, along with coercion and low effortful control in children were associated with behavioral problems. Parents of children who exhibit depressive symptoms may have a clinical diagnosis of depression themselves which influences their parenting, their level of warmth toward their children and their threshold for dealing with misbehavior. Depressed mothers may utilize more harsh disciplinary techniques in their parenting and provide their children with less warmth, which is typical of authoritarian parents. Further research is needed to evaluate the link between parenting style and depression symptoms within children.

Anxiety problems. The DSM-oriented scale for anxiety problems include symptoms of generalized anxiety disorder, separation anxiety disorder and specific phobia. Even though anxiety symptoms are included in the CBCL, there is minimal research that focuses on the prevalence of anxiety disorders in preschool aged children (Egger & Angold, 2006). Recent research by Spence et al. (2001) explored anxiety symptoms in preschoolers and found that three-year-olds were more likely than four- or five-year-olds to experience fears related to physical safety, social fears and separation anxiety. Three-year-olds especially exemplified anxiety symptoms when being left at school or with a babysitter. This research also found that anxiety symptoms were significantly higher among three-year-olds than four- or five-year-olds. This finding

could be due to the developmental level of toddlers and the life transitions facing these children such as beginning preschool. It could also be related to the amount of time mothers spend with their three-year-olds (Spence et al., 2001). Overall, anxiety disorders are present among preschoolers and impair those children's functioning more than children with fewer anxiety symptoms (Egger & Angold, 2006).

Previous research shows a relationship between parenting and child anxiety disorders. Parents who are identified as regulating their children's actions excessively, and who are vigilant and intrusive are likely to have children with anxiety problems (Bögels & Brechman-Toussaint, 2006). Data collected by Hudson and Rapee (2001) support these findings and identified mothers of children with anxiety problems as being more intrusive and more negative in their parenting (Hudson & Rapee, 2001). This suggests that authoritarian parenting may increase anxiety problems in children. The overbearing and negative parenting of these mothers could cause these negative child outcomes.

Pervasive developmental problems. The scale for pervasive developmental problems includes symptoms of Asperger's or Autistic diagnoses. It is suggested that early recognition of the disorder and early intervention can reduce adverse outcomes for children with these disorders (Dumont-Mathieu & Fein, 2005). Chakrabarti and Frombonne (2005) state that symptoms characteristic of pervasive developmental disorders become apparent around the age of 18.6 months. It is also suggested that the occurrence of pervasive developmental disorders is similar across race and sex. The same study found a prevalence rate of 3.4 per 1000 among children between the ages of 3 and 10 (Yeargin-Allsopp et al., 2003).

It is suggested that parents play a significant role in the intervention of some detrimental outcomes associated with disorders such as Asperger's and Autism. However, there is minimal evidence linking parenting styles and pervasive developmental disorders. Previous data note that children with autism diagnoses are not clearly associated with any particular child rearing techniques. The same study, however, noted that beneficial gains were made when parents took a more active role in their child's development and well-being (Fombonne, 2003). Although genetics are thought to play an essential role in Autism, research suggests that parents' involvement and relationship with their autistic child can influence child outcomes either favorably or detrimentally.

Attention deficit/hyperactivity problems. The nature-nurture debate is also relevant to research pertaining to attention deficit hyperactivity disorder. While attention deficit/hyperactivity is considered to have a biological contribution, parenting may play an influential role in the extent to which the disorder is detrimental to a child's ability to function (Campbell, Shaw, & Gillion, 2000; Cunningham & Boyle, 2002; Malhi & Singhi, 2003; Stormont, 1998). The CBCL/1½-5 measure of attention deficit/hyperactivity (ADHD) problems includes both impulsive and inattentive symptoms. Toddlers with attention deficit hyperactivity disorder will differ from other toddlers in that they will be more active than other children of the same age and will be less cooperative in play with peers (Malhi & Singhi, 2003). Lahey et al. (2004) suggest that diagnosing toddlers with attention deficit/hyperactivity is a challenge considering the minimal attention span typical of toddlers, but found that symptoms in preschool predict later diagnosis (Lahey et al., 2004).

Previous research has shown that mothers of toddlers with ADHD use more controlling and negative parenting techniques than positive or preventative techniques. They are also observed to be more disapproving of their children during parent-child interactions (Campbell, Shaw, & Gillion, 2000; Cunningham & Boyle, 2002; Stormont, 1998). A comprehensive literature review by Stormont (1998) found that parenting characteristics were significant predictors of ADHD symptoms in children. One of these characteristics was maternal negativity (Stormont, 1998). These findings were supported by Malhi and Singhi (2003), who found that mothers of ADHD children were more likely to use commands and punishment than mothers of children without the disorder. This trend of negative parenting could be associated with the authoritarian parenting style, which may suggest a connection between maternal parenting style and later child symptomology. Malhi and Singhi (2003) note that the parent-child relationship can become more negative when the diagnosis of ADHD is left undiagnosed, and children have an increased risk for other problems such as academic underachievement, adjustment problems, speech delay and low self-esteem.

Oppositional defiant problems. Behaviors exhibited by children with oppositional defiant disorder (ODD) include physical violence, such as fighting and cruelty to animals as well as argumentativeness and stubbornness. In older children, drug and alcohol use are also symptoms of ODD along with truancy and vandalism (APA, 1994). Emond et al. (2007) suggest that specific behaviors during the preschool years are predictors of oppositional defiant disorder. These predictive behaviors include disobedience, hot temper, and bossiness (Emond et al., 2007). Low benevolence, as well as higher ratings of disagreeableness have also been noted as predictors of oppositional

defiant problems (De Pauw, Mervielde, & Leeuwen, 2009). Children experiencing symptoms of oppositional defiance disorder may also demonstrate co-occuring symptoms. Gadow and Nolan (2002) found that a community sample of children between the ages of three and six with oppositional defiant disorder symptoms were rated as having greater problems than the ADHD comparison group. Problem behaviors that were included in the assessment included conduct disorder and anxiety problems, including generalized anxiety and social phobia as well as mood disorders such as major depression (Gadow & Nolan, 2002).

Findings previously noted by Rubin et al. (1998) found a link between mother's negative dominance and toddler's aggressive behavior, which was shown to be particularly strong for boys at two years of age. Further findings within this study also found that mothers of children who were more likely to behave aggressively utilized aversive and controlling discipline behaviors (1998). Contrary to these findings, Simons, Chao, Conger, and Elder (2001) found that older children who are oppositional defiant had parents who used minimal discipline along with negligible monitoring. As these children reached adolescence, it was found that their parents attempted to exert more control. When combining these findings it could suggest that parents of children with ODD could be either authoritarian or permissive or might fluctuate between extremes of firm control or lax discipline.

Conclusions drawn from research by Dishion and McMahon (1998) support the idea that a lack of parental monitoring plays a role in children's risk taking behaviors such as drug or alcohol use. This link was found across a variety of diverse populations. Together with fluctuations in parenting techniques, previous research on ODD has also

explored the possibility of fluctuations within the disorder itself. Nagin and Tremblay (1999) assessed the possibility of oppositional behaviors being precursors to physical aggression, but this progression was not supported in their research. Nagin and Tremblay suggest observing children within the first year of life to assess for oppositionalism instead of kindergarten, which may be too late. Even though the onset and progression of ODD is unclear, there are some familial characteristics that are common among these families.

In a literature review by Reed and Sollie (1992), it was stated that conduct disorder and ODD share similar diagnostic criteria, suggesting that familial characteristics may be similar. Some of these characteristics included a disruptive marital relationship, as well as parent-child conflict. It was concluded that children with conduct disorder frequently come from homes where parents interact with their children in negative and conflictual ways with ineffective communication. These parents, especially mothers, were more likely to utilize coercive mechanisms within interactions along with inadequate commands and conflicting messages, which was shown to be reciprocated by the child (Blotcky, Tittler, & Friedman, 1982; Reed & Sollie, 1992).

Rationale and Hypotheses

Many studies have shown that child personality and health outcomes vary by parenting style. However, there is minimal information pertaining to how parenting styles are related to early signs of potential diagnostic outcomes for children. Campbell, Shaw and Gilliom (2000) state that child behavior problems such as impulsivity, hyperactivity, aggression and noncompliance are facilitated by the existence of a poor mother-child relationship. This dysfunctional relationship is marked by ineffective discipline and

limited maternal warmth which are characteristics included within permissive and authoritarian parenting styles respectively (Campbell et al., 2000). Not only are these parents more likely to use harsher disciplinary techniques, they are also more likely to be inconsistent in their parenting (Campbell et al., 2000; Harnish, Dodge, & Valente, 1995; McLoyd, 1998; Patterson, Debaryshe, & Ramset, 1989). Gross, Sambrook and Fogg (1999) believe that the parent-child relationship is the fundamental construct in predicting behavior problems in children more than any other environmental construct.

Although much of the research focuses on adolescent behavioral problems, it is becoming clear that there is a need to understand the development of disorders in preschool children, especially to inform early intervention. It is suggested that by the age of four years old, negative or positive parent-child interactions leading to childhood disorders are already apparent. Keenan et al. (1998) suggest that the developmental precursors that are associated with behavioral and emotional problems can be identified as early as the first two years following birth and that problems recognized within the first year may predict future disorders (Keenan, Shaw, Delliquadri, Giovannelli, & Walsh, 1998). Mothers' parenting styles may be a key influence of child outcomes such as affective disorders, anxiety problems, oppositional defiance, pervasive developmental problems, and attention deficit and hyperactivity symptoms. Therapeutic insight can be gained by understanding the link between parenting styles and DSM-related child outcomes which can influence further research and interventions. An accurate understanding of how child-rearing techniques influence DSM symptomology would enhance clinicians recognition of dysfunctional patters of parent-child interactions by clarifying detrimental parenting techniques. A better understanding of detrimental and

healthy parenting may also guide the implementation of appropriate treatment interventions.

A more in-depth understanding of the association between parenting styles and DSM-related outcomes is needed and is the primary focus of this study. The goal of this study therefore examines the relationship between parental style and DSM-related symptoms in toddlers from 18 to 30 months of age. Data from this study will assess correlations between parental styles and these child outcomes. Regression analyses will also be used to assess which relationships are most significant. By further understanding these relationships clinicians and researchers may provide parents with beneficial information to enhance parental discipline and nurturance. This may encourage healthier parent-child interactions which will decrease the occurrence of childhood disorders.

By using CBCL/1½-5 DSM-oriented scales for assessment, future research may provide greater congruence across studies. This study will use a measure of the extent to which preschoolers' mothers use each of Baumrind's three parenting styles in order to assess the relationship of those parenting styles to DSM-oriented symptoms in children. It is hypothesized that the extent to which mothers are authoritative in their parenting style will be negatively related to DSM symptoms in all 5 categories. It is also hypothesized that the extent to which mothers are authoritarian in their parenting style will be positively related to DSM symptoms, more strongly than authoritative and permissive parenting styles. It is hypothesized that the extent to which mothers are permissive in their parenting style will be positively related to DSM symptoms, more strongly than authoritative parenting, but less strongly than authoritarian parenting.

CHAPTER III

METHODOLOGY

Participant Recruitment

105 mothers volunteered to participate in this study along with their 18- to 30-month-old male and female toddlers. Participants were recruited from central Oklahoma through the use of convenience sample techniques between July 2008 and May 2009. Mothers were contacted through organizations such as Early Head Start, child care centers, churches and local businesses. Advertisements within local newspapers and the local university prompted the majority of contacts. A snowball strategy was also utilized by providing participants with business cards to disperse to other potential participants.

Participants

The median age of mothers was 30 years, ranging from 19 to 41, and the majority of participants were Caucasian (83.8%, *n*= 88), with African Americans comprising 4.8% (*n*= 5), Native Americans 7.6%, (*n*= 8), Asian equaled 2.9% (*n*= 3), and 1% classified as "Other" (*n*= 1). Fifty-six mothers (55.4%) had an income of $30,000 or more, while 24 mothers (23.8%) reported an income of $18,000 or less and 21 mothers (20.8%) reported an annual income between $18,000 and $30,000. Overall, 93 mothers (91.4%) reported having at least some college education with a median educational equivalent of a Bachelors degree (*n*= 32, 30.5%). Thirty-five mothers (33.4%) reported having some

higher education beyond high school, not including a college degree and 31 mothers (29.5%) had at least some post graduate education. Five mothers (4.8%) noted their highest degree of education as high school, with only 2 mothers (1.9%) having less than a high school education. The majority of participants were married 79% (*n*= 83), while 13.3% (*n*= 14) were single. Others were separated (4.8%, *n*= 5) or cohabiting (2.9%, *n*= 3).

Design and Procedure

When initial contacts were made, mothers scheduled a time to be interviewed. Mothers were mailed a packet of questionnaires along with a consent form before the in-person interview. This Wave 1 packet included the Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson et al., 2001) as well as the Child Behavior Checklist 1 ½ - 5 (CBCL, Achenbach & Rescorla, 2000). At the interview, which was conducted either at a university lab or at the participant's home, a staff member reviewed the consent form with each mother and administered three more questionnaires, which were not used in this study. During the second wave of assessments, mothers were mailed the Child Behavior Checklist 1 ½ - 5 one month following the interview. There was a response rate of 97%. Mothers received monetary compensation for their participation. Thirty dollars were provided at the completion of the interview and another $30 was mailed after the one-month follow-up questionnaires were returned to researchers.

Measures

Child Behavior Checklist 1 ½ -5 (CBCL, Achenbach & Rescorla, 2000). Mothers completed a report of their child's behavior through the use of the Childhood Behavior Checklist 1 ½ - 5 prior to the interview and one month after the interview. For

the purpose of this study, questionnaires were scored using the DSM-Oriented scales. These scales include affective, anxiety, pervasive developmental, attention deficit/hyperactivity and oppositional defiant symptoms. Affective problems include dysthymia and major depression, and sample items included “Cries a lot” and “Doesn’t eat well.” Generalized anxiety disorder, separation anxiety disorder and specific phobias are included in the anxiety problems category and included items such as “Clings to adults or too dependent” and “Doesn’t want to sleep alone.” The pervasive developmental problems pertain to autism, including Asperger disorder and included items such as “Afraid to try new things” and “Avoids looking others in the eye.” Attention Deficit/Hyperactivity problems included items such as “Can’t concentrate, can’t pay attention for long” and “Can’t sit still, restless, or hyperactive.” Items included within the Oppositional Defiant problems were “Stubborn, sullen, or irritable” as well as “Temper tantrums or hot temper.” Scores were calculated by summing item responses. A score of 0 represents an item that is “not true of the child,” 1 is equivalent to “somewhat or sometimes true,” and 2 represents “very true or often true.” Higher scores are representative of how likely a child is to exhibit a symptom related to the criteria for relevant DSM-oriented diagnoses. According to the Manual for the ASEBA Preschool Forms and Profiles (Achenbach & Rescorla, 2000), test-retest reliability is satisfactory for Affective problems (r = .79), Anxiety problems (r =.85), Pervasive Developmental problems (r =.86), Attention Deficit/Hyperactivity problems (r =.74), and Oppositional Defiant problems (r =.87). Cronbach’s alpha for the scales in the current study are as follows: Affective problems (α=.58), Anxiety (α=.59), Pervasive Developmental

problems (α=.60), ADHD (α=.81), and ODD (α=.87). See Table 1 for descriptive statistics on these five scales plus the variables from the PSDQ.

Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson et al., 2001). The PSDQ was completed prior to the interview and provided data on mothers' ratings of their own parenting style. The short form of the questionnaire was used and consisted of 32 items. Responses range from 1 (never) to 5 (always). These scales are consistent with the categories authoritarian, authoritative and permissive as defined by Baumrind (1966). In the current study, Cronbach's alphas were good for authoritarian (α= .81) and adequate for authoritative (α = .71) and permissive parenting scales (α = .53). Subscales within authoritative parenting included connection (α=.63), regulation (α=.71) and autonomy granting (α=.57) dimensions. Subscales used to assess authoritarian parenting included physical coercion (α=.48), verbal hostility (α=.65), and non-reasoning/punitive (α=.50). Permissive parenting was assessed by only one subscale, which measured an indulgent dimension. Original coefficient alphas and scale items are included in the appendix.

Table 1
Means, Standard Deviations, and Ranges for Study Variables

	Means	(*SD*)	*Range*
DSM-Oriented Scales (Wave 1)			
Affective Problems	1.73	(1.76)	0 – 9
Anxiety Problems	2.35	(2.00)	0 – 10
Pervasive Developmental Problems	2.87	(2.87)	0 – 10
ADHD	5.13	(2.61)	0 – 12
Oppositional Defiant Problems	3.87	(2.42)	0 – 10
DSM-Oriented Scales (Wave 2)			
Affective Problems	1.84	(1.92)	0 – 8
Anxiety Problems	2.48	(2.14)	0 – 10
Pervasive Developmental Problems	2.88	(2.29)	0 – 9
ADHD	4.94	(2.76)	0 – 12
Oppositional Defiant Problems	3.77	(2.81)	0 – 12
Parenting Styles and Dimensions Questionnaire			
Authoritative Parenting	48.92	(5.19)	36 – 59
Connection	18.23	(1.53)	13 – 20
Regulation	16.34	(2.57)	10 – 20
Autonomy Granting	14.20	(2.67)	8 – 20
Authoritarian Parenting	19.00	(3.47)	12 – 28
Physical Coercion	6.72	(1.75)	4 – 14
Verbal Hostility	6.51	(1.74)	4 – 11
Non-Reasoning/Punitive	5.74	(1.71)	4 – 13
Permissive Parenting	10.77	(2.57)	6 – 20

*N*s range from 99 to 105.

CHAPTER IV

RESULTS

Two types of analyses were used to assess the associations between measures of parenting styles and DSM-related symptoms one month later. First, the correlations of the parenting styles and their subscales with DSM-oriented scales are summarized in Table 1. Second, multiple regression analyses were then used for two purposes. The first purpose was to compare the relative strengths of the parenting styles in predicting DSM-related problems. The second purpose for the multiple regression analyses was to strengthen the causal evidence by controlling for Wave-1 scores on the DSM-oriented scales. Table 2 summarizes the multiple regression results. This chapter will summarize the results of all these analyses.

Table 2
Correlations Between PSDQ Variables and Wave-2 DSM-Oriented Scales

Parenting Style Subscale	DSM-Oriented Scales				
	Affective	Anxiety	Pervasive Develop.	ADHD	Oppositional Defiant
Authoritarian	0.26**	0.05	0.17[a]	0.25*	0.32**
Physical Coercion	0.02	-0.00	0.05	0.05	0.24*
Verbal Hostility	0.29**	0.07	0.23*	0.29**	0.37**
Non-Reasoning/Punitive	0.21*	0.03	0.09	0.18	0.02
Authoritative	-0.04	0.08	0.01	-0.13	0.02
Connection	-0.81	-0.04	-0.03	-0.16	-0.04
Regulation	-0.04	0.05	0.01	-0.10	-0.02
Autonomy Granting	-0.01	0.13	0.03	-0.08	0.09
Permissive	0.26**	0.17	0.25*	0.31**	0.32**

Note: *N*s range from 100 to 102.
[a]$p < .10$. * $p < .05$ ** $p < .01$ *(two tailed)*

Correlations

Significant correlations were found between Authoritarian and Permissive parenting and most of the DSM-oriented scales. Authoritative parenting nor any of its subscales were associated with any DSM-oriented scale. Permissive parenting, Authoritarian parenting, and the Verbal Hostility subscale of Authoritarian parenting were each correlated with higher scores on four of the five scales, i.e., all except Anxiety Problems. Authoritarian parenting was shown to be only marginally associated with Pervasive Developmental Problems while all the others were significant, $p < .05$. In

addition, the other two subscales of Authoritarian parenting were each associated with significantly higher scores on one DSM-Oriented scale: Punitive with Affective Problems and Physical Coercion with Oppositional Defiant Problems.

Multiple Regression Analyses

The next analyses were multiple regressions to incorporate measures of two or three parenting styles in the same analyses to determine which parenting style was the strongest predictor of subsequent DSM-oriented problems. Authoritative parenting failed to predict DSM-oriented scores significantly and was therefore dropped from further consideration. Because the associations of Authoritarian parenting with DSM-Oriented scales were due primarily to Verbal Hostility, the regression analyses were repeated with Verbal Hostility substituted for Authoritarian parenting. All of these regression analyses were repeated after controlling for the Wave-1 score on the DSM-Oriented scale to enhance the causal relevance of the results. The results of these multiple regression analyses are shown in Table 2.

Table 3

Standardized Regression Coefficients (β) Predicting Wave-2 DSM-Related Scores from PSDQ Variables, With and Without Controls for the Wave-1 DSM-Related Scores

Predictor Variables	Model 1: Correlational	Model 2: Causal	Model 3: Correlational	Model 4: Causal
Affective Problems				
Wave-1 Affective Problems		.51***		.50***
Permissive Style	.21*	.12	.25**	.13
Authoritarian Style	.21*	.10		
Verbal Hostility Subscale			.29**	.21**
Anxiety Problems				
Wave-1 Anxiety Problems		.54***		.53***
Permissive Style	.17[a]	-.02	.17[a]	-.04
Authoritarian Style	.00	-.06		
Verbal Hostility Subscale			.06	.01
Pervasive Developmental Problems				
W1 Pervasive Developmental Problems		.55***		.53***
Permissive Style	.23*	.16[a]	.24*	.16[a]
Authoritarian Style	.11	.05		
Verbal Hostility Subscale			.22*	.14[a]
Attention Deficit/Hyperactivity (ADHD) Problems				
Wave-1 ADHD Problems		.69***		.67***
Permissive Style	.28**	.11	.30***	.11
Authoritarian Style	.18[a]	.03		
Verbal Hostility Subscale			.28**	.15*
Oppositional Defiant (ODD) Problems				
Wave-1 ODD Problems		.62***		.60***
Permissive Style	.28**	.10	.31***	.12
Authoritarian Style	.25*	.10		
Verbal Hostility Subscale			.36***	.18*

Note: *N*s range from 100 to 102. PSDQ = Parenting Styles and Dimensions Questionnaire
[a]$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Using multiple regressions, it was found that Permissive parenting, Authoritarian parenting, and the Verbal Hostility subscale showed significant relationships to DSM-related outcomes. Permissive parenting was significantly related to symptoms of affective problems, pervasive developmental problems, attention-deficit/hyperactivity and oppositional defiant problems. After controlling for Permissive parenting, Authoritarian parenting was significantly related only to symptoms of affective problems and oppositional defiant problems. In contrast, the Verbal Hostility subscale predicted significantly greater affective problems, pervasive developmental problems, attention-deficit/hyperactivity problems, and oppositional defiant problems, after taking Permissive parenting into account.

The first data column in Table 2 shows that Permissive parenting was the strongest predictor of subsequent DSM-related symptoms. It predicted higher scores on all five scales. The association was significant at the .05 level for all scales except for Anxiety Problems, for which the association was marginally significant, $p < .10$. After controlling for Permissive parenting, Authoritarian parenting predicted more Affective and Oppositional Defiant symptoms, $p < .05$, and marginally more ADHD symptoms, $p < .10$ than permissive parenting. The association with DSM-related symptoms was greater for Permissive parenting than for Authoritarian parenting, except for Affective Problems, which were predicted just as strongly by Authoritarian parenting as by Permissive parenting.

After controlling for Wave-1 scores on the same DSM-Oriented scales, however, the associations between these parenting styles and the DSM-Oriented scales became non-significant (2nd data column of Table 1). The only exception was that Permissive

parenting marginally predicted higher scores in Pervasive Developmental Problems than would be expected based on the Wave-1 scores on those problems.

The Verbal Hostility subscale predicted DSM-related symptoms more strongly than the overall Authoritarian scale, however, both in competing with Permissive parenting and in documenting causally relevant effects after controlling for initial differences at Wave 1. Verbal Hostility predicted affective problems and Oppositional Defiant problems more strongly than did Permissive parenting (see the 3rd data column of Table 2). After controlling for initial scores at Wave 1, Verbal Hostility also predicted significantly more symptoms on three DSM-oriented scales: affective problems, attention-deficit/hyperactivity problems, and oppositional defiant problems. In addition, it predicted pervasive developmental problems marginally, $p < .10$.

CHAPTER V

DISCUSSION

Results partially supported the research hypotheses previously stated. It was confirmed that authoritarian and permissive parenting are both associated with greater child DSM-related symptomology. Significant relationships will be described further throughout this chapter along with a description of implications based on these results.

Parenting Styles

Authoritative. It was hypothesized that the extent to which mothers are authoritative in their parenting style would be negatively related to DSM symptoms in all five categories. It was found instead that authoritative parenting did not predict decreases in DSM-related symptoms. However, authoritative parenting was the only parenting style not associated with increases in DSM symptomology.

Permissive. It was also hypothesized that the extent to which mothers are permissive in their parenting would be positively related to DSM symptoms. It was assumed that authoritarian parenting would be associated with more DSM symptoms than permissive parents, but the results did not support this hypothesis. In fact, results indicate that when assessed together, permissive parenting is the strongest predictor of child DSM-related symptomology. This could be due to the concept that during toddler development the toddler begins to internalize parental standards, expectations and an

understanding of broader social norms. During this stage of development it is particularly important for parents to provide their children with a secure and consistent environment. The lack of structure and consistency witnessed within permissive parenting may negatively impact the toddlers' development (Davies, 2004).

The adverse influence of permissive parenting is consistent with several studies. In concordance with Cunningham and Boyle (2002) and Jewell and Stark (2003), this study found that permissive parenting was related to externalizing behavior problems such as oppositional defiance. The lack of maturity demands along with minimal control may influence the appearance of oppositional defiant behaviors in preschoolers since appropriate boundaries are not being enforced. The current study also found that permissive parenting was significantly associated with higher levels of affective problems.

Authoritarian. It was also hypothesized that the extent to which mothers are authoritarian in their parenting would be positively related to DSM symptoms, with authoritarian parenting associated with the most symptoms. Although it was shown that authoritarian parenting was associated with more DSM symptoms than authoritative parents, results did not indicate that authoritarian parenting was more likely than permissive parenting to be associated with DSM symptoms. Even though authoritarian parenting did not predict symptomology more strongly than permissive parenting, the authoritarian subscale of Verbal Hostility did predict affective and oppositional defiant symptoms more strongly than did permissive parenting. Furthermore, Verbal Hostility was the only parenting style measure that predicted worsening symptoms one month later, i.e., higher symptom scores than predicted by initial scores on those symptoms. It

appears that among toddlers, verbal hostility is more detrimental than authoritarian parenting as a whole. Various reasons for this finding can be hypothesized, for instance, verbally hostile parents may under report incidences of physical or punitive parenting as those subscales may be more socially inappropriate. It may also reflect the concept that during this stage of development, toddlers are more adversely impacted by verbal hostility. Although authoritarian parenting as a whole did not predict DSM-related symptoms more strongly than permissive parenting, its Verbal Hostility subscale predicted worsening symptoms more strongly than permissive parenting.

Even though authoritarian parenting was not associated with more DSM-related symptoms, the verbal hostility subscale suggests that toddlers are impacted negatively by verbally hostile interactions. Nonetheless, the results did not support the more adverse effects of authoritarian parenting as a whole which was noted in the literature. This discrepancy might be explained by the causally relevant results, in which Verbal Hostility was the strongest predictor of worsening symptoms one month later. This suggests the possibility that the Verbal Hostility aspect of authoritarian parenting may be making several types of DSM symptoms worse, which in turn could increase the association between authoritarian parenting and those symptoms as children get older. As these toddlers age, their parents disciplinary tactics may escalate to more punitive or physically coercive means of discipline. Verbal hostility was shown to be associated with increases in toddlers' affective problems, pervasive developmental problems, ADHD problems and ODD problems at wave two, controlling for wave one scores for the same problems.

Comparisons of symptoms affected. While anxiety-related symptoms were not predicted by any parenting style in this study, the other four types of symptoms were

higher for children with permissive or authoritarian parents. Overall, permissive parenting and verbal hostility significantly predicted affective and oppositional defiant problems. Both permissive parenting and verbal hostility were also marginally related to pervasive developmental and attention-deficit/hyperactivity problems. It is also important to note that the two symptoms which are most often considered genetically influenced symptoms were at least marginally influenced by permissive parenting and Verbal Hostility. This coincides with the previous assumption that parenting can either positively or negatively impact the child's predisposition for pervasive developmental problems or attention-deficient/hyperactively. Findings noted by Fombonne (2003) are in agreement with this assumption that beneficial gains can be made when parents take a more active role in their child's development and well-being.

Limitations

One limitation within this study is the lack of a largely diverse population considering that the majority of participants were middle to upper class Caucasian mothers. A more diverse sample would enable a greater amount of generalizability. It is unclear how parenting styles may impact toddlers' DSM-related symptomology in minority populations. Another drawback related to generalizabiltiy is the fact that parenting information was only obtained from mothers and there is a lack of data related to fathers' child rearing practices. This may impact the presence of DSM-related symptomology considering parents may employ different parenting styles (Simons & Conger, 2007).

Another limitation could be the short length of time between wave one and wave two testing. Longer longitudinal studies may determine with greater accuracy the

predictability of toddler DSM-related symptomology as well as changes across developmental stages. Further research may demonstrate how authoritative, permissive and authoritarian parenting continues to impact child symptomology. A greater understanding of how authoritative parenting hinders the intensity of symptoms may also be gained from further longitudinal analysis.

It would also be beneficial to obtain CBCL outcomes based on others reports of child behaviors, such as teachers, in order to enhance the validity within child outcomes. Solely basing child DSM symptoms from mother report may show a bias in mothers' perspectives of their children. Combining questionnaires from teachers may produce a more accurate reporting of child DSM-related symptoms.

Conclusions

Overall, it was found that permissive parenting and verbal hostility play a significant role in the manifestation of affective and oppositional defiant problems, while often marginally predicting increases in pervasive developmental and attention-deficit/hyperactivity problems. This suggests that parenting plays an important role in the exacerbation of childhood disorders and symptomology. Children of authoritative parents are assumed to manage their DSM-related symptoms better than children of permissive parents or parents who utilize verbally hostile tactics. As previously stated, it is suggested that permissive parenting and verbal hostility may exacerbate DSM-related symptoms such as Autism and ADHD.

These findings may influence how parent educators and clinicians work with families. A more comprehensive understanding of parenting styles and their impact on DSM symptomology within toddlers can inform a clinician's perspective of the family

system. Clinicians who are aware of the detrimental outcomes associated with verbal hostility and permissive parenting will be more likely to recognize these patterns and initiate more positive interactions. In parent education programs and family therapy treatment, it would be beneficial for clinicians to encourage authoritative parenting and to minimize permissive parenting as well as verbal hostility. As previously noted, authoritative parenting is recognized as encouraging positive outcomes for children, which is further supported in this study (Aunola & Nurmo, 2005; Baumrind, Larzelere, and Owens, 2010, in press; Steinberg, 2001). These findings may further aide in the creation and implementation of beneficial parenting programs. These programs can further promote parental warmth and nurturance along with appropriate toddler regulation. This knowledge will increase clinicians' awareness of negative interactions within parent-child relationships by exemplifying how verbal hostility and indulgent parenting impact toddler DSM symptomology.

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APPENDICES

Oklahoma State University Institutional Review Board

Date:	Thursday, October 29, 2009
IRB Application No	HE0960
Proposal Title:	The Influence of Mother's Parenting Style on Toddlers' DSM-Oriented Outcomes
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 10/28/2010

Principal Investigator(s):

Deidre Werner ✓
4599 N. Washington Apt. 29A
Stillwater, OK 74075

Robert Larzelere
233 HES
Stillwater, OK 74078

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.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. 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 this 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 Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Shelia Kennison, Chair
Institutional Review Board

PARENTING STYLES & DIMENSIONS QUESTIONNAIRE (PSDQ)
Constructs Scoring Key

AUTHORITATIVE PARENTING STYLE (FACTOR 1*)

	SEM Std. Coeff. M	F	MS	FS	Subfactor 1 - Connection Dimension (Warmth & Support)
7.	.74	.70	.77	.70	Encourages child to talk about the child's troubles.
1.	.68	.72	.78	.68	Responsive to child's feelings or needs
12.	.67	.64	.73	.64	Gives comfort and understanding when child is upset.
14.	.62	.65	.69	.62	Gives praise when child is good.
27.	.54	.61	.65	.53	Has warm and intimate times together with child.

[To obtain a Connection Dimension score - mean the above 5 items]

	SEM Std. Coeff. M	F	MS	FS	Subfactor 2 - Regulation Dimension (Reasoning/Induction)
25.	.71	.72	.77	.66	Gives child reasons why rules should be obeyed.
29.	.65	.67	.73	.70	Helps child to understand the impact of behavior by encouraging child to talk about the consequences of his/her own actions.
31.	.68	.65	.74	.66	Explains the consequences of the child's behavior.
11.	.67	.67	.75	.70	Emphasizes the reasons for rules.
5.	.62	.74	.74	.72	Explains to child how we feel about the child's good and bad behavior.

[To obtain a Regulation Dimension score - mean the above 5 items]

	SEM Std. Coeff. M	F	MS	FS	Subfactor 3 – Autonomy Granting Dimension (Democratic Participation)
21.	.65	.69	.74	.66	Shows respect for child's opinions by encouraging child to express them.
9.	.49	.56	.63	.50	Encourages child to freely express (him/herself) even when disagreeing with parents.
22.	.45	.51	.56	.50	Allows child to give input into family rules.
3.	.44	.50	.56	.50	Takes child's desires into account before asking the child to do something.
18.	.43	.51	.54	.48	Takes into account child's preferences in making plans for the family.

[To obtain an Autonomy Granting Dimension score - mean the above 5 items]

SEM = Structural Equation Modeling standard coefficients
M = Mother's Self Report
F = Father's Self Report
MS = Mother's Report on Spouse
FS = Father's Report on Spouse

***Alpha = .86; Sample = 1377**

[To obtain an overall Authoritative Parenting Style score - mean all 15 items

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AUTHORITARIAN PARENTING STYLE (FACTOR 2*)

	SEM Std. Coeff. M	F	MS	FS	
					Subfactor 1 - Physical Coercion Dimension
2.	.84	.78	.85	.79	Uses physical punishment as a way of disciplining our child.
6.	.78	.74	.78	.74	Spanks when our child is disobedient.
32.	.64	.59	.73	.66	Slaps child when the child misbehaves.
19.	.52	.57	.55	.58	Grabs child when being disobedient.

[To obtain a Physical Coercion Dimension score - mean the above 4 items]

	SEM Std. Coeff. M	F	MS	FS	
					Subfactor 2 - Verbal Hostility Dimension
16.	.64	.57	.72	.63	Explodes in anger towards child.
13.	.57	.63	.65	.67	Yells or shouts when child misbehaves.
23.	.48	.45	.63	.51	Scolds and criticizes to make child improve.
30.	.43	.45	.55	.48	Scolds and criticizes when child's behavior doesn't meet our expectations.

[To obtain a Verbal Hostility Dimension score - mean the above 4 items]

	SEM Std. Coeff. M	F	MS	FS	
					Subfactor 3 - Non-Reasoning/Punitive Dimension
10.	.59	.55	.70	.60	Punishes by taking privileges away from child with little if any explanations.
26.	.57	.63	.70	.67	Uses threats as punishment with little or no justification.
28.	.52	.56	.59	.55	Punishes by putting child off somewhere alone with little if any explanations.
4.	.48	.52	.54	.50	When child asks why (he)(she) has to conform, states: because I said so, or I am your parent and I want you to.

[To obtain a Non-Reasoning/Punitive Dimension score - mean the above 4 items]

SEM = Structural Equation Modeling standard coefficients
M = Mother's Self Report
F = Father's Self Report
MS = Mother's Report on Spouse
FS = Father's Report on Spouse

Alpha = .82; Sample = 1377

[To obtain an overall Authoritarian Parenting Style score - mean all 12 items

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PERMISSIVE PARENTING STYLE (FACTOR 3*)

	SEM Std. Coeff. M	F	MS	FS	Indulgent Dimension
20.	.71	.78	.68	.75	States punishments to child and does not actually do them.
17.	.63	.58	.60	.59	Threatens child with punishment more often than actually giving it.
15.	.53	.48	.64	.55	Gives into child when (he)(she) causes a commotion about something.
8.	.42	.43	.41	.52	Finds it difficult to discipline child.
24.	.39	.37	.46	.44	Spoils child.

SEM = Structural Equation Modeling standard coefficients
M = Mother's Self Report
F = Father's Self Report
MS = Mother's Report on Spouse
FS = Father's Report on Spouse

Alpha = .64; Sample = 1377

[To obtain an overall Permissive Parenting Style score - mean all 5 items]

Note: Please use the following when referencing the PSDQ:

Robinson, C. C., Mandleco, B., Olsen, S. F., & Hart, C. H. (2001). The Parenting Styles and Dimensions Questionnaire (PSQD). In B. F. Perlmutter, J. Touliatos, & G. W. Holden (Eds.), *Handbook of family measurement techniques: Vol. 3. Instruments & index* (pp. 319 - 321). Thousand Oaks: Sage.

VITA

Deidre Jane Werner

Candidate for the Degree of

Master of Science

Thesis: THE INFLUENCE OF MOTHERS' PARENTING STYLES ON TODDLERS' DSM-RELATED SYMPTOMS

Major Field: Human Development and Family Science, specialization in Marriage and Family Therapy

Biographical:

Education:
Completed the requirements for the Master of Science in Human Development and Family Science at Oklahoma State University, Stillwater, Oklahoma in December, 2009.

Professional Memberships:
2007 – Present: AAMFT student member
2007 – Present: OKAMFT student member

Name: Deidre Jane Werner Date of Degree: December, 2009

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: THE INFLUENCE OF MOTHERS' PARENTING STYLES ON TODDLERS' DSM-RELATED SYMPTOMS

Pages in Study: 49 Candidate for the Degree of Master of Science

Major Field: Human Development and Family Science

Scope and Method of Study:

This study utilized mothers' self report measures to assess parenting styles and child DSM-related symptomology.

Findings and Conclusions:

Overall, it was found that permissive parenting and verbal hostility play a significant role in the manifestation of affective and oppositional defiant problems, while only marginally predicting increases in pervasive developmental and attention-deficit/hyperactivity problems. This suggests that parenting plays an important role in the exacerbation or minimization of childhood disorders and symptomology. Children of authoritative parents are assumed to manage their DSM-related symptoms better than children of permissive parents or parents who utilize verbally hostile tactics. It is suggested that permissive parenting and verbal hostility may exacerbate DSM-related symptoms such as Autism and ADHD. In relation to parent education programs and family therapy treatment it would be beneficial for clinicians to encourage parents to use authoritative parenting rather than permissive parenting or the verbal hostility component of authoritarian parenting.

ADVISER'S APPROVAL: Dr. Robert E. Larzelere