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INTERNALIZING SYMPTOMS OF CHILDREN AND

PARENTING PRACTICES: AN

EXPLORATORY STUDY

by

Kristi Lowe Stewart

A thesis submitted in partial fulfillment of requirements for the degree

of

MASTER OF SCIENCE

in

Psychology

Approved:

UTAH STATE UNIVERSITY Logan, Utah

2001

ABSTRACT

Internalizing Symptoms of Children and

Parenting Practices: An

Exploratory Study

by

Kristi Lowe Stewart, Master of Science Utah State University, 2001

Major Professor: Dr. Gretchen Gimpel

Department: Psychology

Parenting practices are known to be associated with childhood behavior difficulties. Past research has focused on the association between parenting practices and externalizing behavior problems in children. The relationship between internalizing behavioral problems and parenting practices has received less empirical attention. The current study explored the connection between internalizing symptomology in children and parenting practices. Sixty-six parents and children between the ages of 8 and 12 were surveyed regarding internalizing symptomology and parenting practices. Results indicated that parents of children with internalizing symptomology displayed statistically significantly poorer parenting behaviors than did parents of children who were free of internalizing symptoms. Two parenting styles were statistically significantly correlated with internalizing symptoms in children: Overreactivity and lax parenting styles. No

significant interaction was noted among gender, internalizing symptomology, and parenting practices. Clinical findings may suggest that parent training may be warranted for children with internalizing symptomology.

(115 pages)

DEDICATION

This paper and all of the hours of work behind it are dedicated to Scott Stewart for his never-ending patience through this difficult process. His continuing support helped create a balance in my life that could not have existed without him.

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I would like to express my sincere appreciation to Dr. Gretchen Gimpel for her patience, guidance, and enduring commitment. Without her this project would not have been possible. I also wish to thank Dr. Susan Crowley and Dr. Patricia Truhn for their support in completing this phase of my education. I wish to acknowledge all those who participated in the collection of these data; in particular, Dr. Cher King, whose valiant efforts created hope when there seemed to be none. Finally, I am in debt to my family and friends for their unwavering faith in me. Their support has allowed me to climb higher than I could have alone.

Kristi Lowe Stewart

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CHAPTER I

INTRODUCTION AND PROBLEM STATEMENT

Researchers who have investigated childhood psychopathology have generally recognized two broad dimensions of emotional and behavioral problems, externalizing and internalizing disorders. Children with externalizing behaviors are often described as aggressive, antisocial, hyperactive, oppositional, and defiant (Reynolds, 1990).

Internalizing behavior problems are overcontrolled and innerdirected. Internalizing symptoms include withdrawal, somatic complaints, depression, and anxiety (Cicchetti & Toth, 1991).

There is a debate among researchers about the utility of using broad categories (internalizing and externalizing) versus specific narrow diagnoses (e.g., depression, anxiety, attention deficit hyperactivity disorder). When discussing child behavior problems, some researchers have suggested that the use of specific categories or narrow band syndromes (depression, conduct disorder) is superior to the use of broad band syndromes. For example, it has been suggested that anxious and depressed children are distinctly different from one another and that information is lost when they are lumped into one single broad category (Achenbach & Edlebrock, 1984). Others believe that the use of broad band categories allows the grouping of symptoms in a more realistic way than does the narrow band classification system. That is, it has been suggested that due to a high comorbidity rate between narrow band disorders (e.g., depression and anxiety share many symptoms) that using narrow band diagnoses only separates children into distinct

categories (anxious, depressed, socially withdrawn), which may be artificial (Merrell, 1994; Reynolds, 1990). While the debate persists, most agree that for now information is needed on both narrow and broad band categories.

In the last two decades there has been a heightened interest in the broad band internalizing category. Researchers have begun to investigate symptomology, stability, diagnosis, etiology, and the long-term effects of internalizing symptomology in children (e.g., Merrell, 1995; Ollendick & King, 1995; Reynolds, 1990; Verhulst & van der Ende, 1992). Environmental, social, and familial associations with internalizing disorders in children have also begun to receive more attention recently (e.g., Gallimore & Kurdeck, 1992, Hart, DeWolf, Woznaik, & Burts, 1992). One emerging area of interest includes the examination of the associations between parenting and internalizing symptomology in children.

Historically, research on parenting has been discussed using Baumrind (1971) typologies. Initially, Baumrind identified three parenting styles: authoritative (use of supportive, consistent re-directions), permissive (use of lax, inconsistent parenting methods), and authoritarian/overreactivity (use of physical punishment or extreme measures). Later, a fourth style was added, the rejecting-neglecting (parents who are disengaged). These categorizations have been widely accepted among researchers.

It is generally recognized that there is a relationship between parenting style and child behavior. However, it is unclear what the relationship between the two is. Bandura (1977) suggested that there is a reciprocal relationship between behavior and shaping influences. This theory would suggest that a child's behavior is influenced by parenting

interactions and the parents' behavior is influenced by the child's behavior. This theory has been supported by recent research that indicated specific child factors (e.g., hyperactivity, temperament, demandingness) are related to poor parenting practices (Ammerman & Patz, 1996). It should be noted that it is difficult to establish causal relationships between parent and child behavior, and thus the literature focuses instead on associations between parent and child behavior.

Specific associations have been noted between parenting style and children's academic achievement, social skills, behavior problems, and psychopathology (Smetana, 1995). However, these noted parent-child relationships have, historically, focused on the parental style and overt child deviant behaviors. Thus, much of what has been widely accepted about parent-child interactions has been based on research that examined children with externalizing behavioral problems.

This trend in research has resulted in a relative paucity of research examining the association between parenting and internalizing child behavior. The renewed interest in internalizing symptomology in children over the past two decades has brought some preliminary investigation into the area of parenting and internalizing symptomology. However, most of this research has investigated parenting as it is associated with specific internalizing symptoms (i.e., depression or anxiety) rather than investigating the internalizing category as a whole. For example, Hart et al. (1992) reported a link between physical punishment, threats, and nonjustified directives and social isolation or rejection in preschoolers. In another study, Straus and Kantor (1994) reported that corporal punishment is associated with depression and aggression. These studies provided

important information on specific aspects of internalizing disorders but do not speak to the association between parenting and internalizing symptomology as a whole.

In addition, it has been suggested that research on specific parenting practices also needs to be conducted (Darling & Steinberg, 1993). While a good deal of research on parenting style has been conducted, research on parenting practices is quite sparse. The term "parenting style" is used to refer to the constellation of parent attitudes that create an emotional climate or context in which parenting behaviors take place. "Parenting practices" are defined as behaviors engaged in by parents that are defined by a specific content and have specific socialization goals (Darling & Steinberg, 1993). Finally, these terms should be distinguished from disciplinary style that refers to specific behaviors engaged in when working with child behavior problems (Smetana, 1995). This new way of discussing aspects of parenting was introduced in 1990 and has helped make research conducted in the 90s more specific and clear. However, these terms cannot always be adequately applied to research conducted earlier; thus, for the purposes of this paper, two terms will be used. Parenting style will be used if the research does not clearly focus on parenting behaviors. If parenting behaviors are examined, then the term parenting practices will be used. If the research seems to implicate both parenting style and parenting practices, then both terms will be used.

From the above nomenclature it is noted that there is even less research that has been conducted examining the associations between specific parenting practices and internalizing symptomology in children. The associations between parenting and internalizing symptomology in children need to be explored in order to develop a better

understanding of factors involved in internalizing behavior problems. The little research that has been done with parenting styles and internalizing symptomology has primarily focused on specific symptoms that fall within the internalizing category. This leaves a lack of research on the connection between parenting practices and internalizing symptomology. There is a need for additional investigation on parent/child relationships and the role they play in the development and maintenance of childhood internalizing symptomology. Thus, this study was designed to explore the relationships between childhood internalizing symptomology (as a broad category) and parenting practices.

CHAPTER II

LITERATURE REVIEW

The purpose of this chapter is to provide an overview of three major topics: internalizing symptomology, parenting styles and practices, and the connection between parenting styles and internalizing symptomology in children. In the following sections each of these topics will be addressed in turn. Internalizing symptomology in children is introduced first with a discussion of the utility of the broad band diagnosis. Then, the symptoms, prevalence, and stability of internalizing symptomology in children are explored. Next, the topic of parenting styles and practices will be reviewed with a discussion of the historical roots and current trends in the literature in this area. Then, reported connections between child internalizing symptomology and parenting practices will be discussed. In addition, issues regarding the measurement of parenting practices and internalizing symptomology are presented. Finally, this information is integrated to show that there is relatively little research on the connections between internalizing symptomology and parenting practices. Thus, it will be proposed that a new study is needed to formally investigate the associations between internalizing symptomology in children and parenting practices.

Child Psychopathology--Broad Versus Narrow Bands

The view of child psychopathology has changed dramatically in the last century.

Initially, theorists posited that children could not experience emotional distress in the same

way adults experienced distress. Horney (1945) was one of the first to suggest that children not only experienced a great deal of distress but that the expression of this distress could be divided into two categories. These two broad categories of childhood psychopathology are commonly referred to as externalizing behaviors and internalizing behaviors. However, as research continued some began to suggest that more specific syndromes (depression, anxiety) could be identified in children (Mash & Dozios, 1996).

Although it is currently believed that both broad and narrow band syndromes provide valuable information (Merrell, 1994), a debate exists over the use of narrow band versus broad band diagnoses. The narrow band diagnosis position is based on the idea that there are distinct categorical disorders that exist in both adults and children (Mash & Dozios, 1996). Broad band classification suggests that narrow band disorders are not separate and distinct disorders, but lie on a continuum and usually coexist with one another (Achenbach & Edelbrock, 1978; Reynolds, 1990). The broad band groups are typically derived through multivariate analysis by grouping those symptoms that statistically band together (Mash & Dozios, 1996). These groupings typically include two categories: externalizing or undercontrolled disorders that include aggressive and hyperactive symptoms (Reynolds, 1992), and internalizing disorders or overcontrolled disorders that include symptoms of anxiety, depression, and somatic complaints (Cicchetti & Toth, 1991).

The two-dimensional broad band split of childhood disorders has been widely supported in the research (e.g., Achenbach & Edelbrock, 1984; Ollendick & King, 1995). However, this two-dimensional split is not without its critics. In their review, Achenbach

and Edlebrock (1978) reported that several researchers report three broad bands instead of two. The third band identified was either pathological detachment or learning problems (Achenbach, 1966; Lessing & Zagroin, 1971). Only one of these studies (Achenbach, 1966) was able to identify the third band for both boys and girls, thus making it difficult to establish a consistent three-factor nomenclature for all children. Because of the difficulties associated with developing consistent three-factor systems, two-factor systems have been widely supported and used in both clinical practice and research.

The use of narrow band classification has been widely supported by the American Psychiatric Association (APA) in the <u>Diagnostic and Statistical Manual of Mental</u>

<u>Disorders</u> (DSM). This system is focused on identification of narrow band syndromes through the use of inclusion and exclusion rules. The use of the <u>DSM</u> is popular with practitioners due to the comprehensive nature of the system (Merrell, 1994). Third-party providers also endorse the use of this system, often requiring professionals to list a <u>DSM</u> code for service reimbursement. The widespread acceptance of this system has created a useful tool that is used nationwide.

Narrow band syndromes have been criticized because of the reported degree of comorbity (or the appearance of two separate syndromes at the same time) between syndromes (Brady & Kendall, 1992; Cicchetti & Toth, 1991). For example, the broad band category of externalizing disorders is considered to encompass the narrow band syndromes of conduct disorders, oppositional defiant disorder, and attention deficit hyperactivity disorder (Merrell, 1994). However, in trying to diagnose these narrow band disorders it is often difficult to determine where conduct disorder ends and attention

deficit hyperactivity disorder begins (Cicchetti & Toth, 1991). Some researchers argue that attention deficit hyperactivity disorder, conduct disorder, and oppositional defiant disorder all lie on a continuum and do not have distinct beginning and end points (Cicchetti & Toth, 1991).

The distinction between internalizing narrow band disorders can be even more problematic, partially due to lack of objective criteria available to assess childhood disorders (Brady & Kendall, 1992). Behaviors that may be noted in children with internalizing problems are slowed speech, avoidance, withdrawal, and lack of direct eye contact. But these behaviors are often more difficult to directly observe than behaviors associated with externalizing problems (Kazdin, 1988; Merrell, 1994). These symptoms may be related to anxiety or depression or both, thus making the differentiation between narrow band syndromes in the internalizing category even more difficult.

Brady and Kendall (1992) suggested that anxiety and depression share even the same cognitive construct elements, meaning they both involve cognitive elements of external threat, affective elements of distress, and behavior components of withdrawal. The main differentiation between these two disorders is the type of affective patterns (i.e., anxiety is associated with fear and depression with sadness). If the only component differentiating these two disorders in children is affective, then it becomes relatively difficult for researchers and clinicians to determine which diagnosis best fits the child.

In sum, a debate exists over the use of broad versus narrow band categorization of childhood psychopathology. Each system has positive and negative features. The narrow band syndromes that fall within the broad internalizing category (e.g., depression, anxiety,

social withdraw) are difficult to differentiate from one another in child populations (Ollendick & King, 1994). Due to the drawbacks associated with identifying narrow band syndromes in internalizing populations, this paper will focus on the broad band category of internalizing symptomology rather than specific narrow bands.

Overview of Internalizing Symptomology

The following section is intended to provide an overview of internalizing symptomology in children. Symptoms commonly associated with the internalizing category will be discussed along with common narrow band diagnoses for these symptoms. Then, prevalence rates and research on the stability of internalizing symptomology as a construct will be explored.

Symptoms

The internalizing category is considered to consist of childhood behaviors that are innerdirected or focused. There is no universally agreed upon set of symptoms that make up the internalizing category (Reynolds, 1992). Achenbach and McConaughy (1996) reported that while the general domains of behavior within the internalizing category are agreed upon, the specific diagnoses and/or behaviors change with the type of measurement device being used. The purpose of this review will be to identify major domains and diagnoses that are thought to be within the internalizing category. Reynolds (1990) identified four major domains of internalizing disorders: depression, anxiety, somatic complaints, and "others." Each of these will be reviewed in turn.

The term "depression" has been associated with a variety of symptoms over the years. The change in symptoms has been largely related to the change in criteria set in Diagnostic and Statistical Manual of Mental Disorders (4th ed.; American Psychiatric Association, 1994). According to this edition, depressive symptoms may include a persistent saddeded mood, anhedonia, fatigue, insomnia, suicidal thinking, excessive guilt, or severe mood swings. Callahan, Panichelli-Mindel, and Kendall (1996) reported that, in addition to these symptoms, children with depression also exhibit feelings of being unloved, social withdrawal, lower academic performance, and a change in appetite and sleeping patterns. DSM-IV diagnoses for children with these symptoms are major depression, dysthymic disorder, bipolar disorder, and cyclothymia.

Anxiety symptoms are also included in the internalizing category. Clinically significant anxiety symptoms according to the <u>DSM-IV</u> include the following: excessive worry and distress (about a variety of situations or specific situations), difficulty controlling worry, difficulty being reassured by others, sleep disturbance, muscle tension, difficulty concentrating, irritability, concerns about negative evaluations, difficulty interacting with others, the occurrence of panic attacks (pounding heart, shortness of breath, dizziness, fear of dying, and chest pain), recurrent unwanted thoughts or obsessions, and uncontrollable repetitive behaviors (hand washing, checking). These symptoms fit into a variety of <u>DSM-IV</u> diagnoses, including; separation anxiety disorder (fear of losing important attachment figure), generalized anxiety disorder (multisituational and context worry), social phobia (fear of negative evaluations), specific phobia (fear of a specific stimulus), panic disorder (panic attacks with excessive fear of having another

panic attack), and obsessive compulsive disorder. Callahan et al. (1996) reported that in addition to these symptoms, children with significant levels of anxiety can display social withdrawal, headaches, stomach aches, heart palpitations, and difficulty concentrating.

Somatic complaints are physical complaints that do not have an identifiable physiological cause. Common somatic complaints among children are stomach aches, headaches, and muscle pain. Eating disorders and elimination disorders have also been reported to be included in this category (Reynolds, 1990). Somatic symptoms that do not fit into specific <u>DSM-IV</u> categories are often associated with depression and anxiety diagnoses (Callahan et al., 1996).

The last group of symptoms that are generally considered to belong in the internalizing category does not fit specifically with any <u>DSM-IV</u> diagnoses per se. These are the symptoms of social withdrawal, poor social skills, peer rejection, and inability to form meaningful relationships. These symptoms are considered meaning and important by many researchers (Quay, Weaver, & Neel, 1986; Reynolds, 1990), but have not been included in the narrow band <u>DSM-IV</u> nomenclature. The lack of a formal diagnosis in the <u>DSM-IV</u> to accompany these symptoms again highlights the importance of continuing to research internalizing symptomology as a whole rather than relying solely on the narrow band DSM- IV diagnoses.

Prevalence

The prevalence of internalizing symptomology in children is not entirely clear.

Prevalence rates for internalizing disorders are reported to vary by gender. The <u>DSM-IV</u>

reports that internalizing symptomology is more common in female than male adolescents. However, equal numbers of internalizing behaviors for male and female children have been reported among prepubescent children (Kochanska, 1995). Specific prevalence estimates vary and are typically tied to the narrow band disorders rather than to the group of symptoms as a whole. Prevalence estimates of childhood depression range from 2-18% (Reynolds, 1992). Prevalence rates for anxiety disorders in children have been estimated to be as high as 8.9% (Costello, 1989). Somatic complaints have been reported to occur in up to 20% of school-aged children (Greene & Thompson, 1984). Reynolds (1992) reported that one out of every six children receiving psychological treatments has been formally diagnosed with a disorder that falls within the internalizing category. Reynolds suggested that this indicates that internalizing symptomology is a serious and pervasive problem for children.

Stability

Stability is a key theoretical issue in childhood psychopathology because it speaks to the issue of the impact the pathology has on a child. Stability of a childhood disorder refers to whether difficulties in childhood will continue over the life span of the individual, or if noted pathology will fade in adolescence or adulthood (Fischer, Rolf, Hasazi, & Cummings, 1984). Two kinds of stability have been identified: cross-situational and longitudinal stability (Olweus, 1979). Cross-situational stability refers to the degree of consistency that is seen in an individual's behavior in different environments (e.g., school and home settings). This type of stability is of primary concern to those who are interested

in assessing behaviors as reported by sources from different environments. Longitudinal stability is defined by Olweus as the tendency for an individual to maintain certain behavior patterns and/or personality characteristics across time. Longitudinal stability has been of great concern to researchers and theorists investigating childhood disorders because the value of treatment of children is called into question if the disorders noted in childhood do not have a documented impact on the adult life of the individual. If childhood psychopathology is not predictive of future problems, then treatment should shift from attempting to alter long-term behavioral patterns to alleviating current symptoms.

Many investigators have suggested that internalizing behavior problems do not have significant stability over time (Fischer et al., 1984). However, relatively new research has indicated that internalizing symptomology has significant stability over time. In fact, it has been suggested that internalizing and externalizing disorders have equal longitudinal stability (Verhulst & van der Ende, 1992). The research on stability is briefly reviewed below.

A longitudinal study examining 541 children, ages 9-15, found that both externalizing and internalizing disorders have significant stability over time (Fischer et al., 1984), but that externalizing behavior problems have significantly more stability than do internalizing behaviors. Fischer et al. reported that externalizing behavior problems (rather than internalizing behavior problems) were the best predictor of later internalizing behavior problems. However, this study used the Vermont Behavior Checklist at the initial assessment and the Child Behavior Checklist at the follow-up assessment 7 years later.

The authors cautioned that the Vermont Behavior Checklist has fewer items that load on

the internalizing cluster than the externalizing cluster, which may bias results. The findings of Fischer et al. (1984) are congruent with the findings of Kohn (1977), who also found that externalizing behavior problems had greater stability and higher predictive power than internalizing behavior problems.

A longitudinal study conducted by Verhulst and van der Ende (1992) presented evidence contrary to these earlier findings. Verhulst and van der Ende suggested that the reason for the previously mixed results regarding the stability of internalizing behaviors was the lack of measurement instruments that could reliably measure both internalizing and externalizing behavior patterns over time. They indicated that many instruments assessed limited age ranges and that researchers of longitudinal studies often abandoned their original measures due to the advent of new measures (which will invariably measure different constructs) due to superior technical properties of the new instruments. Verhurst and van der Ende reported that the advent of the Child Behavior Checklist (CBCL) has made it possible to conduct longitudinal studies with the same measure.

In their study, Verhurst and van der Ende (1992) followed 936 randomly selected children over 6 years, testing the children at 2-year intervals with the CBCL. This study found that there were no significant differences between the stability of internalizing and externalizing behavior problems. Results also indicated that initially reported behavior problems were significant predictors of the same cluster of problems at the final measurement 6 years later. This suggests that reported difficulties in a specific area are not merely predicative of general maladjustment (as suggested by Fischer et al., 1984), but are predictive of specific future problems. In addition, it was found that the scale showing the

highest odds of remaining in the deviant range over time was the Anxious/Depressed Scale that is included in the internalizing cluster. After 6 years children who initially scored in the deviant range on this scale were eight times more likely to score in the deviant range than children who were not initially rated as having difficulties on the Anxious/Depressed Scale. This study extended other results (Gersten, Langner, Eisenber, Simcha-Fagan, & McCarth, 1976; Graham & Rutter, 1973; McGee et al., 1985) all of which lend support to the notion that internalizing behaviors may be more stable across time than had been previously suspected. The recognition of the stability of internalizing behavior problems has increased researchers' awareness of the importance of investigating the correlates and etiology of internalizing disorders in children.

Parenting Style and Parenting Practices

Parenting style and practices have long been a topic of interest to researchers and clinicians. The literature in this area is quite dense and spans over 40 years. The purpose of this review is to provide an overview of the important historical roots and research trends in the area. This will be done first by discussing the seminal work in the area, Baumrind's (1971) theory of parenting styles. Then, more resent research will be reviewed.

Historical Foundations

The investigation into parenting styles is not new. Many theorists and researchers were investigating parenting styles in the 1970s and 1980s. Most of what is considered to be common knowledge today is based on research that was done during that time period.

Of critical importance to the current understanding of parenting practices are Baumrind's (1971) theories. Baumrind developed a widely used parenting style theory that consisted of two orthogonal dimensions: demandingness and responsiveness. Baumrind proposed that when these two dimensions crossed, three major parenting styles emerged: authoritative, authoritarian, and permissive. Each of these parenting styles has been supported by subsequent research.

The authoritative style of parent/child interaction is practiced by parents who are both responsive and demanding. This parenting style is marked by guidance, support, and encouragement for children. This style of parenting has occasionally been described as containing an inductive approach (parents' use of explanations and reasoning with their children). Other researchers have suggested that inductive practices used by parents are a distinct set of child-rearing practices (Maccoby & Martin, 1983). Authoritative parenting has been consistently associated with positive outcomes in academic achievement, social adeptness, peer relationships, and long-term mental health (e.g., Smetana, 1995).

Authoritarian parents are considered to be demanding and unresponsive.

Authoritarian practices include techniques that involve force, harshness, and punishment.

Corporal punishment has been considered to be at the extreme end of authoritarian practices. Corporal punishment in childhood is associated with depression, suicide, alcohol abuse, and assault in the adult years (e.g., Gallimore & Kurdek, 1992). Although the authoritarian style can produce immediate changes in child behaviors, the use of this technique has been demonstrated to be ineffective in the long term. That is, it does not

promote fewer child transgressions or more prosocial behavior (Chilamkurti & Milner, 1993).

Parents who have a permissive parenting style are responsive but not demanding. Thus, the permissive style of parenting lacks consistency and structure. Baumrind (1971) reported that this parenting style is used by parents who seem to be attempting to avoid exerting control over their children. As noted by Forehand and McKinney (1993), this style often includes mixed messages for children. Lax or permissive parenting styles have generally been associated with aggression, antisocial behavior, poor academic performance, and overt childhood behavior problems (e.g., Arnold, O'Leary, Wolff, & Acker, 1993).

Baumrind's work is considered to be the platform upon which most investigations into parenting styles are founded. The taxonomy she developed has been used for the last 40 years. Not until the early 1990s, was a change to the taxonomy suggested. Darling and Steinberg (1993) suggested that researchers needed to use more specific language when discussing parenting. They suggested that the term "parenting style" should refer to the constellation of parent attitudes that create an emotional climate or context in which parenting behaviors take place. "Parenting practices," on the other hand, are defined as behaviors engaged in by parents that are defined by a specific content and have specific socialization goals. Finally, these terms should be distinguished from disciplinary style, which refers to specific behaviors engaged in when working with child behavior problems (Smetana, 1995). Baumrind's work examined components of both parenting style and practices, as did many of the researchers of her day.

Early Findings about Parenting Styles

During the 1970s and 1980s there was research conducted on various parenting style topics. Three major trends of research for this time period can be identified: (a) associations between parenting style and childhood behavior, (b) parents' perceptions of their children, and (c) parents' attitude and its influence on specific child behaviors. These trends are reviewed below.

Researchers began investigating how parenting styles and child psychopathology are related. Aggressive, antisocial, impulsive, and oppositional behavior was consistently associated with lax and/or authoritarian parenting (e.g., Lobitz & Johnson, 1975; Snyder, 1977). During this time it was also reported that parents of children with externalizing disorders reinforce their children less and punish their children more than parents of children without externalizing disorders (e.g., Patterson, 1976; Snyder, 1977). In addition, it was noted that parents of children with overt behavior problems were likely to reinforce the behavior problems through coaxing or softening of commands (Forehand, Gardner, & Roberts, 1978). Thus, it was generally recognized that parents who engaged in authoritative or permissive parenting were more likely to have children with behavioral problems than parents who did not engage in this type of parenting.

The second topic that was popular for researchers during this time period was parental perceptions. The study of parental perceptions implies that childhood psychopathology may be a perception of the parent, not actual child pathology. That is, it was suggested that parents who feel and/or behave ineffectively view their children as more poorly behaved, and thus engage in behaviors that make the child look as if he/she is

poorly behaved. Lobitz and Johnson (1975) conducted a study in which parents of 4- to 8-year-olds were asked to influence their children to look misbehaved, well behaved, or normally behaved. Parents were given no directions on how to go about influencing their children to appear in a certain manner. Raters then went into the parents' homes to observe the children and the parents' behavior under the requested conditions. Lobitz and Johnson found that parents could both negatively and positively manipulate how raters viewed their children by changing the number and type of instructions given. This study also found that parents of children who were classified as exhibiting behavior problems were able to manipulate their children's behavior in the same manner as parents of the "normal" control group.

Another important study in this area found that mothers play an active role in making their children seem misbehaved (Green, Forehand, & McMahon, 1979). They noted that mothers of misbehaving children use directives that are impossible to comply with and use significantly more directives than mothers of children who are perceived as behaving. This "sets up" children to be noncompliant. These studies show that parents' perceptions of their children change the way parents behave, thereby changing the way the children behave. This finding was important because it paved the way for the development of parent-training interventions as a method of treating child psychopathology.

Finally, research during this era shifted from examining parental attitudes to examining specific parenting practices that affected child behaviors. Initially, many researchers were interested in how a person's attitudes about parenting affected his or her child's behavior. In a review of this topic, Holden and Edwards (1989) defined parental

attitude as parent knowledge, beliefs, affective judgment, and intended behaviors. Holden and Edwards reported that parent attitude is a relatively weak construct. They noted that parent attitude is rarely unidimensional, rather attitudes often are dependant on a variety of inter- and intrapersonal events. These events can cause parents' attitudes to change over time. Holden and Edwards also reported that previous research does not support a strong connection between parent attitude and parent or child behavior, thus making parental attitude a construct that is difficult to use. Findings like these lead researchers to begin to abandon the concept of parental attitude and turn towards the investigation of specific parenting behaviors that comprise effective and poor parenting interactions.

Specific factors found to influence the effectiveness of parenting interactions include timing (Abramowitz & O'Leary, 1990), loudness, length (Abramowitz, O'Leary, & Futtersack, 1988), and consistency (Acker & O'Leary, 1988). Parenting interactions that consistently follow an inappropriate behavior, are kept short and simple, and are spoken not shouted result in more positive behavior changes than those interactions that do not meet these criteria. Pfiffner and O'Leary (1989) also reported that immediate, short, firm reprimands by parents were more effective in controlling misbehavior than delayed, long, gentle reprimands. However, it was noted that immediate, short, firm reprimands were associated with more immediate negative affect from the child (crying, tantruming) than longer reprimands. The consistent use of these factors has also been shown to reduce further transgressions on the part of the child (Pfiffner & O'Leary, 1989). In addition, it was demonstrated that when ineffective discipline strategies are replaced with more

consistent and clear strategies, children's compliance increases and their aggressive behavior decreases (Webster-Stratton, Kolpacoff, & Hollinsworth, 1988).

These findings regarding length and timing of interactions caused some to believe that a fourth style of parenting practices existed that was defined by long, delayed, gentle verbal interactions (Pfiffner & O'Leary, 1989, Webster-Stratton et al., 1988). This type of parenting practice has been referred to as a verbose or delayed style of parenting (Acker & O'Leary, 1988). To date the strongest evidence for this style of parenting comes from the above-cited sources showing a negative relationship between lengthy verbal interactions and child compliance.

Current Trends in the Parenting Literature

Research on parenting since 1990 has focused on a variety of topics. A full review of all current trends in the past decade is beyond the scope of this paper. One notable shift in the literature is a tendency toward parenting practices or specific parenting behaviors. This type of research has become more prominent than research on parenting styles as a constellation of attitudes, knowledge, and emotions. In addition, research on parenting has begun to branch out into a variety of other areas. Some of these major areas are discussed below.

Researchers have worked to identify parenting practices as stable, distinct, and measurable constructs (e.g., Lenton, 1990; Vuchinich, Bank, & Peterson, 1992). One study found that parenting practices are stable over a 2-year period (Vuchinich et al., 1992). This finding is quite remarkable in that this study used participants who began the

study at ages 9-10 and completed the study at ages 12-13. This suggests that parenting practices remain stable within families over time, even as children move into adolescence.

Research in the 1990s also continued to focus on drawing connections between permissive and authoritarian parenting and child psychopathology. Researchers have noted associations between lack of consistency and poor supervision with narcissism (Ramsey, Watson, Biderman, & Reeves, 1996), disruptive behavior (Shelton, Frick, & Wootton, 1996), academic achievement, and drug use (Cohen & Rice, 1997). In an important longitudinal study Feehan, McGee, Stanton, and Silva (1991) followed families for 8 years while assessing parenting practices, child behavior issues, and maternal mental health. The results indicated that inconsistent parenting practices are significantly correlated with externalizing behavior problems in both middle childhood and adolescence. In this study children whose parents rated themselves as inconsistent disciplinarians were three times as likely to exhibit high levels of externalizing behavior problems than control subjects. The only stronger predictor of behavior problems found in this study was poor maternal mental health.

Research on harsh or authoritarian parenting also has continued to demonstrate a positive relationship between this style and childhood aggression (e.g., Dodge, Bates, & Pettit, 1992), drug abuse (e.g., Cohen & Rice, 1997), depression (e.g., Gerlsma, Emmelkamp, & Arrindell, 1990), and antisocial behavior (e.g., Straus & Kantor, 1994, Vuchinich et al., 1992). A focus on parenting practices has shown that parents who spank, scream, argue, and/or use threats and nag their children tend to have children who have a

variety of externalizing behavioral problems (August, Realmuto, Crosby, & MacDonald, 1995).

Researchers have also investigated how gender affects parenting practices. It has been found that maternal discipline styles have a greater impact on childhood behavior than paternal discipline styles regardless of child gender (Hart et al., 1992). However, it is unclear whether these results are biased due to the mother's status as primary caregiver. Researchers have also investigated the effects of gender of the child on parenting practices (Fox & Bentley, 1992). Hart, Ladd, and Burleson (1990) reported that a single style of parenting can impact male and female children differently. They showed that physical punishment by a child's father or mother will result in an increased display of aggression by both male and female children in the home. However, at school boys continue to display aggressive behavior, but girls who have been physically punished by parents display decreased aggression and increased social withdrawal. Several researchers have noted this pattern of male child assertion and female child withdrawal in response to physical forms of punishment (Hart et al., 1990, 1992). This indicates that a child's gender may mediate the type of distress exhibited when poor parenting practices are used.

As evidence for the connection between parent behavior and child psychopathology has mounted, parent-training intervention research has also increased. Parent training assumes that training a parent to engage in different parenting practices can improve the child's behavior. This clinical application of the parenting practices research has been shown to be effective with children with attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder, and/or conduct disorder. For example,

Anastopoulos, Shelton, DuPaul, and Guevemont (1993) reported that parent training resulted in a significant reduction of symptoms in children with ADHD. An 8-week parent-training course with parents of ADHD children resulted in a significant decrease in reported child ADHD symptoms. However, the authors noted that the change information was gathered through parent report of child behavior both before and after the training course. Therefore, it is still unclear whether changes in child behavior actually occurred or whether parents felt better able to cope with problem behaviors and thus rated their child's behavior problems less severely after the training course.

In addition, researchers in the 1900s have begun to investigate many other topics related to parenting. These include how adolescents view their parents' parenting practices (e.g., Shucksmith, Hendry, & Glendinning, 1995; Smetana, 1995), domain specific parenting (Smentana, 1995), parent perception of parenting practices versus adolescent perception of parenting practices (Cohen & Rice, 1997), effects of income on parenting practices (Shumow, Vandell, & Posner, 1998), child factors contributing to a parent's choice of parenting practices (Ammerman & Patz, 1996), effects of marital conflict on parenting practices (Katz & Gottman, 1993), and various ways of assessing parenting behaviors (Fox & Bentley, 1992; Shelton et al., 1996). This by no means is an extensive list but provides a general idea of the varied topics that researchers are now investigating.

Summary

In sum, three major types of parenting styles have been identified: authoritative,

authoritarian, and permissive (Baumrind, 1971). These parenting styles have been suggested to be distinct and stable over time (Lenton, 1990). The authoritative style of parenting is considered to be warm, reasonable, and nonpunitive and is associated with positive child outcomes. Permissive (lax and inconsistent) and authoritarian (harsh and punitive) styles of parenting have been associated with negative child outcomes. These styles have been noted in both mothers and fathers. Some have suggested that a fourth parenting style exists and is characterized by long, delayed verbal interactions. This so-called verbose style has received less support in the literature. Some gender trends have been reported (Hart et al., 1992), although results on this topic are mixed (Lobitz & Johnson, 1975).

The above review illustrates the multifaceted associations between parenting styles and child growth and development. Research has continually linked child psychopathology with parenting style/practices. However, it is interesting to note that much of the research that has identified relationships between parenting styles and child psychopathology has focused on externalizing behavioral problems. A relatively small number of studies have focused on parenting style and internalizing symptomology in children. These studies will be examined below.

Internalizing Disorders and Parenting Discipline Styles

The above review of parenting styles is marked by a relative paucity of research on the connections between internalizing symptomology and parenting practices. There has been an increase in interest in internalizing symptomology in children and in parenting practices over the past decade (Merrell, 1994). However, much of the research in this area is marked by flaws or is only tangentially related. For instance, internalizing symptomology is rarely studied as a constellation of symptoms; thus, much of the existing literature in this area has focused on a single component of internalizing symptomology (social withdrawal, depression, anxiety). The literature that exists in this area is marked by retrospective research. That is, many of the reported investigations in this area have focused on adults who are depressed and report being depressed as a child. These studies, while providing valuable information, do not hold the same credibility as studies that are conducted with children. Other studies show a limited connection to parenting styles as they investigate the connection between an internalizing symptom and a parent characteristic (child depression and maternal. affection). While not being fully connected to the topic at hand, these studies represent the best the literature has to offer in this area. Thus, these findings are reviewed below.

Research with Children

Parenting practices have been found to be related to school success and psychological distress. Shucksmith et al. (1995) reported that authoritative parenting was found to be associated with more academic and social success in adolescents, and authoritarian and permissive parenting styles were found to be related to increased psychological distress (sadness, anxiety, and adjustment). In another study, it was reported that perceived family social support was negatively related to depression in adolescents

(McFarlane, Bellissimo, & Norman, 1995). Thus, the more adolescents perceived their parents as using supportive practices, the less depression they tended to report.

It has been suggested that social skill deficits in children play a role in the development and maintenance of depressive and anxious symptomology (Merrell, 1995; Stark, Humphrey, Laurent, Livingston, & Christopher, 1993). Some researchers have noted connections between parenting practices and child social skills. For example, Hart et al. (1990) reported that children select more aggressive strategies when their mothers use power assertive discipline (authoritarian parenting practices). Mothers who used parenting practices that did not include rationales tended to have children who were found to exhibit less friendly and more assertive behaviors than children of mothers who did use rationales (Hart et al., 1990). These same children were also found to be less preferred as playmates by their peers. Parenting practices have been shown to have an influence on childhood social acceptance as well. Children whose parents use an authoritative parenting style engage in more cooperative, nondisruptive, and face-to-face conversations than do children whose parents rely on force and punishment (Hart et al., 1992). The above research suggests that child social skills (which may be associated with child internalizing symptomology) may be related to parenting practices.

Researchers have also recognized that each child within a family experiences different parent-child interactions. Each child has experiences that are not shared with their sibilings (nonshared sibiling environment). In an interesting study on preadolescent children, nonshared sibling environment, and parenting researchers found that high levels of maternal affection and control significantly related to children's internalizing behavior

(Dunn, Stocker, & Plomin, 1990). However, it was noted that this correlation was strongest when the level of affection and control differed among siblings. This study suggests a relationship between parenting style and child internalizing symptomology that may be enhanced when other children in the family do not experience the same levels of affection and control.

Gallimore and Kurdek (1992) conducted an investigation of 35 depressed adolescents (Grades 8-9) and their parents' authoritative parenting style. They concluded that, according to the adolescents' reports, fathers' authoritative parenting practices were negatively correlated with adolescent depression. That is, the more authoritative parenting practices used by an adolescent's father, the less depression the child reported. This study failed to confirm a relationship between mother disciplinary practices and adolescent depression. There are several methodological concerns with this study. Most notably there is little reliability and validity data reported on the measure Gallimore and Kurdek used to measure authoritative parenting.

Weiss, Dodge, Bates, and Pettit (1992) reported that there is no association between physical punishment and internalizing behavior problems in children. They reported that the only significant association with parent practices (when Socioeconomic status, child temperament, and marital violence where controlled for) is childhood aggression normally exhibited in externalizing behavior problems. But, the authors cautioned that the results obtained regarding internalizing behavior problems may be biased by the young age of the participants (5- and 6-year-olds).

A rare research project that examined internalizing symptomology and parenting practices supported Weiss and others' (1992) findings (Feehan et al., 1991). This longitudinal study followed over 800 children for 2 years. Measurements of parenting laxness and strictness and child psychopathology were taken. It was found that no statistically significant associations existed between parenting practices and internalizing symptomology. However, it should be noted that parenting practices were measured with three questions.

Marital Conflict and Internalizing Symptomology

Marital conflict has been hypothesized as being related to childhood internalizing symptoms. In an investigation of this topic, Katz and Gottman (1993) reported that children whose fathers showed signs of anger and withdrawal during conflict exhibited more signs of anxiety and withdrawal in school. Katz and Gottman hypothesized that observational learning and parenting practices may be components that contribute to the correlations between marital conflict styles and childhood internalizing symptomology. However, others have hypothesized that marital conflict is merely a life stressor that affects child behavior and is unrelated to parenting practices (Nolen-Hoeksema, Girgus, & Seligman, 1992).

Research with Adults

A study examining adults' depression and the degree that corporal punishment was used in the family of origin established some significant relationships (Straus & Kantor,

1994). Corporal punishment in this study was defined as "acts by parents intended to cause child physical pain, but not injury, for purposes of correction or control of misbehavior" (p. 543). This study found that corporal punishment in adolescence is a significant predictor of later suicidal ideation. Straus and Kantor also reported corporal punishment to be a significant indicator of a variety of externalizing behavior problems as well. Similar results were found by Aber, Allen, Carlson, and Cicchetti (1989), who found that physical abuse is associated with social withdrawal and depression. In a meta-analysis of retrospective perceptions of parenting practices, adults with phobic disorders perceived their parents as having little affection and high levels of control (the equivalent of the authoritarian style). Findings for depression were less clear, though a relationship between parental control and depression was noted.

In sum, there are mixed results supporting the connection between parenting practices and internalizing symptomology in children. The research conducted with children in the area appears to identify several specific connections (i.e., psychological distress and parental permissiveness). In addition, retrospective research supports a relationship between parenting practices and internalizing symptomology. However, several well conducted studies with children refute connections between internalizing symptomology and parenting practices. Therefore, the evidence for the connections between internalizing symptomology in children and parenting practices is mixed and remains to be clarified.

Causation Versus Association

As noted above there is a long history of noting relationships between parenting practices and child psychopathology. However, this does not indicate that parenting styles cause child psychopathology. Rather, it merely states that there is a relationship between the two. In fact, investigators have identified some complex interactions between child psychopathology and parenting styles/practices.

For example, children with conduct disorder are noted to increase aggressive behaviors after aversive consequences administered by parents. The parents of these same children tend to demonstrate a greater tendency to nag, tease, overreact, and be inconsistent with their children than parents of children who do not increase aggressive behavior after consequences (Vuchinich et al., 1992). Vuchinich et al. suggested that this phenomenon indicated that children's antisocial behavior tendencies promote and sustain poor parenting practices. That is, children's behavior has a significant effect on parents' selection and implementation of parenting practices. Children respond more intensely to those parenting practices that sustain their behaviors. This often creates a cycle in which antisocial children escalate their problem behaviors when parents use their traditional discipline practices, which, in turn, causes parents to intervene to a greater degree.

In a review of the literature involving parenting practices and conduct disorders,

Lytton (1992) suggested that the components of the interaction effect on externalizing

disorders are: "(a) Parental behavior exacerbates the child existing tendencies ..., (b)

Parental behavior is a reaction to the child's behavior..., (c) Certain parental tendencies are

a manifestation of underlying genetic factors that predispose both parent and child to socially maladaptive behavior" (p. 693). This coincides with many social cognitive theories (triadic reciprocity, Bandura 1977; interactional-transactional model, Kaufman, 1989), which espouse that children and parents have equal influence upon one another. These multidirectional theories suggest that children's behaviors interact with parent's behaviors to create a complex pattern of interaction. This interaction is equally balanced and each side sustains and encourages the behavior of the other.

Measurement of Internalizing Disorders

There are three basic ways of measuring internalizing symptomology in children: interviews, self-report instruments, and behavioral rating scales. Interviews, which are frequently used to assess a variety of disorders in adults, can be problematic because children are often influenced by the desire to please the adult interviewer (Sattler, 1992). This may result in children overreporting or underreporting their symptoms. Self-report measures can be used with children who have the cognitive skill to understand the questionnaires and appropriately respond. However, as Lewis (1990) has pointed out, this approach is limited by a child's age, vocabulary, and ability to articulate. Behavior rating scales are another alternative when assessing a child. Behavior rating scales ask informants who know the child to answer questions regarding their perceptions of the child's behaviors and emotions (Merrell, 1994). When examining internalizing disorders, this type of measurement assumes that informants are familiar with the child's internal states, which may not be accurate (Lewis, 1990).

As previously mentioned, the measurement of child behavior problems can be difficult. The two most common methods of assessing internalizing disorders in children are behavior rating scales and self-report measures. Each of these methods offers distinct advantages and disadvantages. Behavior rating scales offer an assessment method that allows adults to evaluate the behavior of children and compare it to the behavior of other children. When working with elementary-school children this is particularly advantageous as some have suggested that young children do not have the cognitive capacity to accurately evaluate their own symptoms (Lewis, 1990). However, the measurement of internalizing disorders is complicated by the fact that many of the symptoms are not overtly observable by others in the environment. That is, many of the defining features of internalized symptomology are subjectively experienced like sadness, anxiety, tiredness, and/or negative cognitions. These are important components of internalizing disorders, and, if neglected, in the assessment may lead to misdiagnosis (Merrell, Crowley, & Walters, 1997).

Despite criticisms of limited cognitive functioning, many have argued that children can accurately report their own symptomology through self-report measures (i.e., Kazdin, 1990; Merrell, 1996). Standardized self-report measures allow children to endorse their own symptoms. The use of objective measurements to tap into unobservable emotional and cognitive functions is seen by some to be the appropriate method of evaluation (Reynolds, 1990). However, by using strictly self-report measures, examiners can miss symptoms of internalizing disorders that only an outside observer may report (i.e., rocking during anxious moments, increased need for sleep). Therefore, it has been suggested that

to best assess internalizing symptomology, both a self-report measure and behavior rating device should be used (Schroeder & Gordon, 1991).

The use of multiple assessment devices (self-report inventories and behavior rating scales) for one child can lead to differing views of the problem. It has been noted that the concordance rate between parent and child ratings is often low (Achenbach, McConaughy, & Howell, 1987). That is, parents and children often report symptoms very differently. In a meta-analysis of cross-informant concordance, Achenbach et al. (1987) reported that on average the correlation found between children's report of their own symptoms and parents' report of their child's internalizing symptoms is .22. It has been hypothesized that low correlations between parent and child report may be associated with different perspectives on what constitutes a problem and situational influences (for example, parents see children typically in limited situations; Merrell, 1996). Achenbach et al. (1987) reported that despite low levels of agreement between parents and children, the multimethod assessment is still the preferred procedure because it provides information on what each party finds distressing.

Thus, the measurement of internalizing disorders is complicated by the fact that many of the symptoms are unobservable and subjectively experienced by the child. The use of self-report inventories with children who have the cognitive abilities to understand and accurately report their own symptomology has been suggested as an alternative or additional method to gathering all information from parents (Kazdin, 1990). While using this multimethod form of assessment introduces source variance that may have little to do

with the child's actual symptomology, most agree that gathering information from both parents and children is valuable.

Measurement of Parenting Styles

In all studies conducted on the effects of parental styles/practices and childhood disorders there is always a central concern regarding the appropriate way to measure parenting. A popular approach to measuring parenting has been the use of parental attitude scales. Researchers who conduct investigations using parental attitude scales are operating under the assumption that a parent's report of attitudes toward child rearing is synonymous with actual child-rearing behavior. Holden and Edwards (1989) have lobbied severe criticisms against this assumption. They indicated that while this approach is "intuitively appealing, parsimonious, and expedient," it fails to contribute significantly to the understanding of the family environment. According to Holden and Edwards the instruments developed to assess parental attitudes have poorly defined constructs, poor psychometric properties, and low correlations with actual parental behavior as measured by naturalistic observations. Holden and Edwards suggested the more appropriate methods of measurement are observations and the use of interactive computer programs.

Many other researchers have tried to assess parental discipline practices through direct observations. This method has also recently come under attack largely due to the poor interrater reliability achieved when using naturalistic observations. In addition, naturalistic observations are costly and time consuming. Arnold et al. (1993) reported that

structured observational systems are practical only in research and do little to help identify parenting practices in larger populations.

Due to these criticisms, several researchers have attempted to create behavior checklists for parents regarding actual parenting practices. These Likert-type scales allow parents to indicate how often they have used a behavior modification technique within a stated time period. Behavior checklists are different from attitudinal measures in that they require parents to disclose how frequently they use particular parenting practice, rather than require parents to disclose how they feel about individual parenting practices (as is done in attitudinal assessments). This is important because parents' attitudes about parenting practices and the actual discipline practices are not clearly related to one another (Holden & Edwards, 1989). Behavior checklists are a cost-efficient way to gather large amounts of information from parents in a relatively short period of time (Arnold et al., 1993). A problem noted with the existing behavioral checklists available is that they typically measure parenting practices for narrowly defined age ranges. Most of the parenting behavior checklists focus on parents of children who are very young. Therefore, behavior checklists that consistently and reliably measure parental discipline practices across different ages are needed (Arnold et al., 1993; Fox & Bentley, 1992). The different methods used to identify parenting practices have created some difficulties in synthesizing all the results that have been reported regarding parenting. Generally, those measurement devices that can be used consistently across locations, time periods, and researchers need to be identified.

Summary and Purpose of the Current Study

Parenting practices have been of interest to researchers and clinicians for years. Parenting practices have been noted to impact the way children behave, with negative parenting styles being associated with poor childhood outcomes. However, the information related to parenting practices and internalizing symptomology in children is rather limited and findings are mixed. There is a noted lack of research on parenting practices and covert, overcontrolled childhood behaviors (internalizing symptoms). Some work has been done with specific internalizing symptoms (e.g., depression, anxiety). However, what is needed is a better understanding of the association between parenting practices and internalizing symptomology as a whole. In order to better understand this topic, effective measurement of internalizing symptomology and parenting behavior is needed. Currently, the most time effective and accurate forms of assessment are behavior checklists for parenting practices and behavior checklists and self-report inventories for internalizing symptomology. The current study sought to add to the literature by exploring the relationships between parenting and internalizing symptomology in clinic-referred and nonclinic-referred children. This was done by using the recommended measurement devices (behavioral checklists and self-report inventories for internalizing symptomology and behavioral checklists to measure parenting practices).

Four major research questions were examined in the current study.

1. What correlations exist between parenting practices and internalizing symptomology in children who are in Grades 3 through 6?

- 2. Do parenting practices predict internalizing symptomotology in children in Grades 3 through 6?
- 3. Do parenting practices differ between clinic-referred and nonclinic-referred samples of children in Grades 3 through 6?
- 4. What interactions exist between gender and internalizing symptomology as related to parenting practices?

CHAPTER III

RESEARCH METHOD

Participants

Data were gathered from children in Grades 3 through 6 and their parents.

Children who fall within this age range have been reported to possess the linguistic and cognitive abilities needed to identify internalizing symptoms independently (Weinberger, 1996), which enables them to complete a self-report measure of internalizing behavior.

Research indicates that parent/teacher reports of internalizing symptomology often differ from child-reported levels of internalizing symptoms (Epkins, 1995; Phares & Dansforth, 1994). Thus, it was deemed important that both children and their parents participate so that reports of symptoms could be obtained from both sources.

In the current study, two populations were sampled: a clinic-referred sample and a nonclinic-referred sample. In order to be included in this study, clinic-referred children had to display clinical elevations (scores of 64 or above) on the Internalizing Composite Score on the Child Behavior Checklist (CBCL). There were 41 clinic-referred children and parents who agreed to participate, but only 30 met the criteria for inclusion. All subject information for the clinic-referred group is based on these 30 subjects. The clinic-referred sample was predominantly Caucasian (88%) and male (71%). The mean age of children in the clinic-referred sample was 10.33 years. All of the children in the clinic-referred sample lived with at least one biological parent; mothers were the most common responders (93%) on the parental questionnaires.

The nonclinic-referred population was obtained through an elementary school in an urban school district. To be considered a nonclinic-referred subject, students had to score below 60 on the Internalizing, Externalizing, and Total scales of the CBCL. One hundred fifty students and parents were asked to participate; of those, 51 students and parents agreed to participate, resulting in a response rate of 33.7%. Of those agreeing to participate, 5 were excluded due to school absence the day data were collected. An additional 10 subjects were excluded from the analysis because of elevations on the CBCL, leaving a total nonclinic-referred sample size of 36. The demographic information presented on this group is based on the qualifying 36 subjects. The majority of the participants in the nonclinic-referred sample were also Caucasian (80%), but there were more females (44%) in the nonclinic-referred group than there were in the clinic-referred group. The mean age of the participating children was 9.86 years, and 97% lived with a biological parent. The remaining children lived with either a grandparent or an adopted parent. Parent respondents were still predominately mothers (87%). For more information on demographics, see Table 1.

It should be noted that previous research has shown that mothers tend to rate their children higher on the Child Behavior Checklist than fathers (Achenbach, 1991). Group means for the CBCL total score were calculated separately for those CBCLs completed by fathers ($\underline{n} = 5$), and then these means were compared to their respective group mean (clinical or nonclinical). The CBCL total mean for the fathers in the nonclinical group was $40.0 \ (\underline{n} = 3)$; the nonclinical group mean for the CBCL total was $46.97 \ (\underline{n} = 36)$. The mean for the clinical group fathers was $68.5 \ (\underline{n} = 2)$, compared to a clinical CBCL total

Table 1

Demographic Information

| | Clinica | al-referred | Noncli | nic-referred |
|-------------------------------|---------|--------------|--------|--------------|
| Participants | % | (<u>n</u>) | % | (<u>n</u>) |
| Number of participants | 100 | (30) | 100 | (36) |
| Gender | | | | |
| Male | 73 | (22) | 56 | (20) |
| Female | 27 | (8) | 44 | (16) |
| Age of children | | | | |
| 8 years | 20 | (6) | 6 | (2) |
| 9 years | 10 | (3) | 30 | (11) |
| 10 years | 40 | (12) | 36 | (13) |
| 11 years | 23 | (7) | 28 | (10) |
| 12 years | 7 | (2) | 0 | (0) |
| Parent respondents | | | | |
| Mother | 93 | (28) | 87 | (31) |
| Father | 7 | (2) | 8 | (3) |
| Child | 0 | (0) | 5 | (2) |
| Child lives with | | | | |
| No mother | 13 | (4) | 3 | (1) |
| Biological mother | 78 | (23) | 95 | (34) |
| Stepmother | 10 | (3) | 3 | (1) |
| No father | 38 | (11) | 17 | (6) |
| Biological father | 58 | (17) | 46 | (17) |
| Stepfather | 7 | (2) | 31 | (11) |
| Other | 10 | (3) | 7 | (3) |
| Highest level of education in | | | | |
| nousehold | | | | |
| Some high school | 7 | (2) | 5 | (2) |
| High school graduate | 10 | (3) | 12 | (4) |
| Some college | 20 | (6) | 49 | (18) |
| College graduate | 26 | (8) | 14 | (5) |
| Some graduate school | 16 | (5) | 17 | (6) |
| Graduate school graduate | 20 | (6) | 2 | (1) |
| Ethnicity | | | | |
| Hispanic | 6 | (2) | 8 | (3) |
| Caucasian | 87 | (26) | 81 | (29) |
| Asian American | 0 | (0) | 3 | (1) |
| Other | 7 | (2) | 8 | (3) |

score mean of 69.97 ($\underline{n} = 30$). This suggests that, as in the past, fathers who participated in the this study estimated behavior problems lower than mothers on the CBCL.

Materials

Internalizing symptomology was measured through the use of the CBCL (Achenbach, 1991), which was completed by one of the child's parents, and the Internalizing Symptoms Scale for Children (ISSC; Merrell et al., 1997), which was completed by the child. Parenting discipline practices were assessed through the Parenting Scale (Arnold et al., 1993) and the Behavior Management Self-Assessment (BMSA). The BMSA is an adapted version of the Parental Practice Scale (Strayhorn & Weidman, 1988) produced by August et al. (1995). Parents also completed a demographic information sheet. Consent forms and demographic sheet can be found in Appendix A.

Child Behavior Checklist

The CBCL is a 120-item questionnaire that is completed by an individual who knows the child well (typically a parent). The informant rates a variety of behavior on a 3-point Likert scale. The CBCL consists of eight scales: Aggressive Behavior (20 items), Attention Problems (11 items), Delinquent Behavior (13 items), Somatic Complaints (9 items), Thought Problems (7 items), Withdrawn (9 items), Anxious/ Depressed (14 items), and Social Problems (8 items). An internalizing composite score made up of 32 items from Withdrawn, Anxious Depressed, and Somatic Complaints Ccales and an externalizing composite score made up of 33 items from the aggressive behavior and

attention problems subscales are also obtained. In addition, a total problem score can be calculated. The test-retest reliability coefficients reported by Achenbach for the CBCL (1991) are high, ranging from .80 to .97. Average interrater reliability (between fathers and mothers) across the scales is .66. Achenbach also reported the CBCL to possess adequate construct, content, and criterion-related validity.

Internalizing Symptom Scale for Children

The ISSC (Merrell et al., 1997) is a child self-report measure for use with children in Grades 3 through 6. This scale measures symptoms of internalizing disorders in a 48-item closed-question format. Children have the option to chose between the following statements for each question: never true, hardly ever true, sometimes true, and often true. Scores are summed to create a total internalizing score. In addition to the total scale score, two factor scores can be calculated. Factor 1 is the Negative Affect/General Distress Factor. This factor contains 35 items. The second factor, Positive Affect Factor, contains 17 items. Merrell, Gill, McFarland, and McFarland (in press) reported total internal consistency reliabilities of .92 and subscale internal consistency reliabilities ranging from .86 to .90. Convergent validity has been demonstrated between the ISSC and the Youth Self-Report (.71 to .86), the Children's Depression Inventory (.60 to .76) and the Revised Manifest Anxiety Scale (.56 to .79; Merrell, 1996). The authors of the ISSC reported that the most useful clinical indicator of internalizing symptomology in children is the total score (Merrell et al., 1997).

Parenting Scale

The Parenting Scale (Arnold et al., 1993) is a behavior checklist designed to measure common parental discipline practices with children ages 1 1/2 through 4 years old. This scale is a 30-item questionnaire that is completed by parents. A copy of the Parenting Scale can be found in Appendix C. The Parenting Scale presents questions on a 7-point Likert scale. Each item is anchored by a statement referring to parenting practices (i.e., "When my child misbehaves, I raise my voice or yell.......I speak to my child calmly"). The Parenting Scale assesses parenting along three factors: overreactivity (10 items), laxness (11 items), and verbosity (7 items). Items included in each dimension load on the factors at least at the .35 level. The scores can then be summed and added to two remaining items to create a total score that indicates the level of negative parenting behaviors the individual engages in across all categories. Thus, the higher the total score the more dysfunctional the parenting practices are considered.

Arnold et al. (1993) reported internal consistency reliabilities on the Parenting Scale score as follows: laxness .83; overreactivity .82; verbosity .63; and total .84. Test-retest reliabilities calculated over a 2-week period were: .83 for laxness; .82 for overreactivity; .79 for verbosity; and .84 for the total score. Arnold et al. (1993) also reported that the Parenting Scale shows a statistically significant ability to differentiate between clinical and nonclinical samples.

It should be noted that the Parenting Scale was developed with parents of 1 1/2- to 4-year-old children. The present study used this scale with 8- to 12-year-olds. However, research has consistently identified stable discipline practices in many childhood age

ranges (Arnold et al., 1993; Lytton, 1992; Vuccinich et al., 1992). In addition, this scale contains no specific age-related items which facilitates its use with an older population. As a pilot study for the current project, 5 mothers with children in Grades 3 through 6 completed the PS. All the mothers reported that they found none of the items on the Parenting Scale to be age- inappropriate. In addition, the mothers all reported that the measure had clear directions and was easy to complete.

Behavior Management Self-Assessment

The BMSA, a 15-item scale, asks parents to identify on a five-point Likert scale, the frequency with which they use specific parenting practices. A total score is calculated, and the higher the score the more dysfunctional the parenting practices. The BMSA was standardized on a group of parents with children between the ages of 6 and 10. Internal consistency was reported to be .81 and test-retest reliability over a 6-month interval was .74 (August et al., 1995). A copy of the BMSA questions can be found in Appendix D.

Procedure

Prior to any data collection the procedures for this project were reviewed and approved by the Internal Review Board for Research with Human Subjects (IRB) at Utah State University. It was determined that the procedures were ethical and did not put any of the participants at undue risk. As stated in the participants section, different populations were sampled in the present study, a clinic-referred and nonclinic-referred population. There are two primary differences between these groups. First, the populations were

sampled from different sources (clinic-referred participant data were gathered from outpatient treatment centers and nonclinic-referred participant data were gathered from regular education classrooms). Second, the level of reported internalizing symptomology differed between the two groups. Clinic-referred participants had to score above a 65 on the CBCL Internalizing Scale and the nonclinic-referred participants had to score below a 60 on this same scale. Participants in each group completed identical measures; however, the procedure for soliciting their participation varied slightly between groups, as explained below.

Participants in the clinical sample were solicited from five outpatient treatment centers. Doctoral-level clinicians directed four of the five centers. The fifth site was a multidisciplinary training site that focused on evaluations for children. Parents whose children were receiving clinical services were informed by someone from the clinic secretarial staff, their therapist, or by the researcher that a research project was being conducted at the clinic. Parents were told briefly that the research project was examining internalizing disorders in children and parenting styles. Parents were also told that participation was voluntary and would require only a small amount of their time (30 minutes). If parents were interested in the study, they were given a packet containing the informed consent form, the assent form, and the questionnaires. Parents were asked to review and sign the consent form and have their child sign the assent form, then complete the parent measures (CBCL, Parenting Scale, BMSA, and a demographic sheet) and give the ISSC to their child to complete. Parents then returned the completed packets to their

therapist, who then returned the packets to the researcher. A total of 41 subjects agreed to participate in the research protocol over a 13-month period.

All nonclinical subjects were drawn from an urban school district. Teachers in the third through the sixth grades at this school district were solicited for participation, following district approval of this study. On a specified day, the researcher went into each of the participating teachers' classrooms and described the study to the children. The researcher then gave a packet that contained informational letters, the consent forms, and parent measures (demographic sheet, the CBCL, the Parenting Scale, and the BMSA) to each child to take home to their parents. Students were asked to return the contents of the package within a week, completed or uncompleted, with the signed consent form (the consent form provided a place for parents to sign to indicate whether they wished to participate or not). The researcher told the children that when they returned their packet their teacher would give them a candy bar for their participation. The researcher left a box of candy bars with each teacher. A total of 150 packets was handed out in six different classrooms. One week later, the researcher returned to the participating classrooms and gathered the packets. A total of 86 packets was returned (a 57.3% return rate); of these, 51 parents completed the measures and consented to have their children participate (a 34% completion rate). The researcher then called the children (whose parents had given consent for them to participate) out of their classes in small groups (3-7 children) to complete the ISSC. Five children were not present the day the ISSC was administered, so the ISSC was given to a total of 46 students. Of these 46 children, 10 exceeded the

nonclinical group guidelines (they had CBCL internalizing scores above 60), leaving a total of 36 subjects in the nonclinical group.

CHAPTER IV

RESULTS

Once the data were collected a series of analyses were done. Measures of central tendencies (means and standard deviations) were calculated for clinic-referred (who exhibited internalizing behavior problems) and nonclinic-referred groups on all measures. Then, independent \underline{t} tests were calculated to test for differences between the clinic and nonclinic-referred groups. Pairwise correlations were calculated between all variables. A set of multiple regression analyses was conducted to predict internalizing scores (CBCL Internalizing and ISSC Total scores) from the BMSA and the Parenting Scale scores. Finally, ANOVAs were calculated to examine group by gender interactions on the ISSC and the parenting measures. Given the exploratory nature of this study, all results were considered to reach statistical significance if they met an alpha level of .05.

Preliminary Analysis

The results of these analyses provide a wealth of information that is not directly related to the research questions. The additional information that is provided by the analyses aids in the description and identification of the population. Table 2 provides the means, standard deviations, and effect sizes for each group on the CBCL and the ISSC. In addition, full correlation matrices are presented in Appendix B, so that associations between all the variables can be identified. After descriptive information is presented, the analyses that pertain directly to the research questions are presented.

Table 2

CBCL and ISSC Means and Effect Sizes

| Tests | Clinic-referred $(N = 30)$ Mean SD | Nonclinic-referred $(N = 36)$ Mean <u>SD</u> | Effect size |
|--------------------------------|--------------------------------------|--|-------------|
| CBCL internalizing | 70.13 (4.15) | 45.92 (9.33) | 3.28 |
| CBCL externalizing | 65.20 (8.40) | 49.03 (8.55) | 1.92 |
| CBCL total score | 70.03 (4.52) | 46.97 (8.82) | 3.27 |
| ISSC total score | 61.79 (19.12) | 44.86 (15.51) | 1.17 |
| ISSCnegative affect (Factor 1) | 49.57 (18.07) | 32.22 (14.43) | 1.07 |
| ISSCpositive affect (Factor 2) | 17.54 (7.44) | 11.72 (7.32 | .81 |

Descriptive statistics show that, as expected, the clinic-referred group scored higher than the nonclinic-referred group on the CBCL domain scores and all the ISSC scores. Effect sizes (standard mean differences) were calculated to examine the magnitude of the differences between the clinic-referred and the nonclinic-referred groups on each measure. Particularly large effect sizes for the CBCL scores are evident, although this finding is not surprising given that participants were selected based on these scores. Substantial differences between the nonclinic-referred and clinic-referred groups were found on the ISSC total scores, Negative Affect score (Factor 1), and Positive Affect score (Factor 2). These differences indicate that the children in the clinic-referred group on self-reported internalizing symptoms.

In addition to means and standard deviation, a correlation matrix was generated that incorporated all variables (including all the CBCL narrow band scores, the ISSC factor scores, and the parenting style scores). This matrix is presented in Appendix B. There are two areas of particular interest that are highlighted by the correlation matrix that are not directly related to the research questions. First, the BMSA score and the Parenting Scale total score are statistically significantly correlated (coefficients range from .28 to .63), indicating that these assessment devices are measuring a similar construct. The second area of interest is the relationship between the CBCL subscale scores and the parenting measures.

Research Question # 1--Parenting Styles and Internalizing Symptomology

The first research question of the current study addresses the correlations between parenting styles and internalizing symptomology and can be evaluated with the use of the correlation matrix presented in Table 3. These correlations between parenting styles and internalizing symptomology can be summed by the following: (a) the verbosity score is not significantly related to internalizing symptomology; (b) the BMSA, the Parenting Scale total score, lax score, and overreactivity score are related to parent report of internalizing symptomology on the CBCL; (c) the overreactivity score and the BMSA are the only two scores that display significant relationships with childhood internalizing symptomology as reported by the parent (on the CBCL) and the child (on the ISSC); and (d) none of the

Table 3 Correlations Between Parenting Style Measures and Child Internalizing Behavior Measures

| Measures | CBCL internalizing | ISSC total | ISSC Factor 1 | ISSC Factor 2 |
|------------|--------------------|---------------|------------------|------------------|
| P.S. total | .373** | .213 | .244 | .044 |
| P.S. lax | .368**. | .132 | .159 | .049 |
| P.S. over | .343** | .309* | .295* | .154 |
| P.S. verb. | .242 | .071 | .087 | 012 |
| BMSA | .352** | .265** | .278* | .106 |

^{*} p < .05. **p < .01.

parenting measures statistically significantly correlated with the ISSC Factor 2 score (Positive Affect).

Research Question #2--Prediction of **Internalizing Symptoms**

In order to gain more specific information about the types of parenting behavior that predict internalizing symptoms in children, regression analyses were conducted that used the Parenting Scale lax score, overreactivity score, verbosity score, and the BMSA score as predictor variables for the two main internalizing scores (ISSC total score and CBCL Internalizing score). To better understand the impact of each of the four predictor variables on internalizing scores, \underline{R} and \underline{R}^2 sizes were calculated for every possible combination of predictor variables. That is, predictor variables were entered in pairs,

triplets, and finally as a set into regression models for both the ISSC total score and the CBCL internalizing score. By examining every possible combination of predictor variables one is able to compare how the variance accounted for changes when different combinations of variables are used in regression analyses.

In addition, stepwise regression analyses were conducted for both the ISSC total score and the CBCL internalizing score. The stepwise procedure was chosen because it removes variables that do not add significant contribution to the prediction equation. This is ideal for the current study as all the predictor variables are highly correlated with one another and thus may not add unique contributions to the regression analyses. It can be seen in Tables 4-7 that only a small portion of the variance in internalizing scores is accounted for by parenting factors (as measured in this study).

The regression analyses conducted to predict ISSC scores yielded little information. When entering all predictor variable simultaneously the \underline{F} was not statistically significant and the \underline{R}^2 was only .115 (see Table 5). This indicated that there was little prediction value of the variables as a group. Examination of the \underline{R}^2 values showed that relatively little variability in ISSC scores was accounted for by parenting style scores. The stepwise regression analysis for the ISSC Total score confirmed this. The only significant model generated included one predictor variable, the Parenting Scale overreactivity score. The overreactivity score was a significant predictor of the ISSC total score ($\underline{p} = .013$). The \underline{R}^2 value, though, remained low (.097), indicating that this variable accounted for relatively little of the variance (9%) in the ISSC total score.

Table 4

Predictor Combinations for ISSC Total Score

| Predictor combinations | <u>R</u> | <u>R</u> ² |
|--------------------------------|----------|-----------------------|
| PS lax and PS verb | .141 | .020 |
| PS lax and BMSA | .265 | .070 |
| PS verb and BMSA | .268 | .072 |
| PS over and PS lax | .312 | .097 |
| PS over and PS verb | .312 | .097 |
| PS over and BMSA | .337 | .113 |
| PS lax, PS verb, BMSA | .268 | .072 |
| PS lax, PS over, PS verb | .313 | .089 |
| PS over, PS verb, BMSA | .338 | .114 |
| PS over, PS lax, BMSA | .338 | .114 |
| PS lax, PS over, PS verb, BMSA | .339 | .115 |

Table 5

ISSC Regression Model Summary

| Models | Sum of squares | <u>df</u> | Mean square | <u>F</u> | Sig. | $\underline{\mathbf{R}}^{2}$ |
|------------|----------------|-----------|-------------|----------|------|------------------------------|
| Model 2 | | | | | | |
| Regression | 2307.904 | 1 | 2307.904 | 6.545 | .013 | .097 |
| Residual | 21510.413 | 61 | 352.630 | | | |
| Total | 23818.317 | 62 | | | | |
| Model 1 | | | | | | |
| Regression | 2731.845 | 4 | 682.961 | 1.879 | .126 | .115 |
| Residual | 21086.472 | 58 | 363.560 | | | |
| Total | 23818.317 | 62 | | | | |

Note. Model 1 = All variables forced; Model 2= Stepwise regression with all predictors dropped except PS over.

Table 6

Predictor Combinations for the CBCL

| Predictor combinations | <u>R</u> | <u>R</u> ² |
|--------------------------------|----------|-----------------------|
| PS over and PS verb | .375 | .140 |
| PS lax and PS verb | .386 | .149 |
| PS over and BMSA | .400 | .160 |
| PS verb and BMSA | .400 | .160 |
| PS lax and BMSA | .421 | .177 |
| PS lax and PS over | .427 | .182 |
| PS over, PS verb, BMSA | .421 | .178 |
| PS lax, PS over, PS Verb | .430 | .185 |
| PS lax, PS verb, BMSA | .431 | .186 |
| PS over, PS lax, BMSA | .445 | .198 |
| PS lax, PS over, PS verb, BMSA | .448 | .201 |

Table 7

<u>CBCL Internalizing Score Regression Model Summary</u>

| Models | Sum of squares | <u>df</u> | Mean square | <u>F</u> | Sig. | \underline{R}^2 |
|--|------------------------------------|---------------|------------------------------|----------|------|-------------------|
| Model 1 Regression Residual Total | 2620.118 10411.943 13032.062 | 4 60 64 | 655.030 173.532 | 3.775 | .008 | .201 |
| Model 2 Regression Residual Total | 2578.242 10465.819 13032.062 | 3 61 64 | 859.414 171.374 | 5.015 | .004 | .198 |
| Model 3 Regression Residual Total | 2376.214 10655.848 13032.062 | 2 62 64 | 11 88 .107 171.869 | 6.913 | .002 | .182 |

Note. Model 1 = All variables forced; Model 2 = Stepwise-predictor variables BMSA, PS over, PS lax; Model 3 = Stepwise-predictor variables PS over, PS lax.

The R² values for the predictor combinations for the CBCL internalizing scores showed that the predictors accounted for a higher level of variability in the CBCL internalizing score than they did for the ISSC total score. The prediction of the CBCL internalizing score from the four predictor variables (Parenting Scale lax, overreactivity, verbosity, and BMSA scores) generated three statistically significant models. The first model was generated from the forced entry of all the variables. This model accounted for 20% of the variance in the CBCL internalizing score. The second model (generated from the stepwise analysis) included the Parenting Scale overreactivity score, the Parenting Scale lax score, and the BMSA score and accounted for 19.8% of the variability in the CBCL internalizing score. The final statistically significant model generated included only the Parenting Scale overreactivity score and the Parenting Scale lax score and accounted for 18.2% of the variability in the CBCL internalizing score (see Table 7). Thus, the model with the fewest predictors (Model 3) accounted for only 2% less variability than the model containing all of the predictor variables.

Research Question #3--Parenting Differences in Clinic- and Nonclinic-Referred Groups

To directly answer the research question pertaining to differences between clinical and nonclinical groups on parenting measures, <u>t</u> tests with the Parenting Scale scores and the BMSA as dependant measures were conducted. All of the parenting scores were found to be significantly higher for the clinic-referred group, indicating that parents of clinic-referred children reported more negative parenting behaviors than do parents of

nonclinic-referred children (see Table 8). Standard mean differences calculated for the Parenting Scale and BMSA scores were considered to be in the moderate to high range.

Research Question #4--Gender Effects

To examine the effects of child gender and the interaction between gender and internalizing symptomology on parenting style, five two-way ANOVAs using gender and group status (clinical versus nonclinical) as independent variables and parenting scores as dependent variables were conducted. For this analysis, group status (clinical versus nonclinical) was considered to be an indicator of internalizing symptomology (clinic-referred children have higher CBCL internalizing scores and higher ISSC scores). The results of these analyses are presented in Tables 9-13. There were statistically significant gender main effects for the Parenting Scale overreactivity score and the Parenting Scale verbosity score. Means for girls (30.96 on Parenting Scale overreactivity and 29.79 on Parenting Scale verbosity) were higher than they were for boys (28.02 and 27.10, respectively). There were no statistically significant gender-by-group interactions.

Table 8

<u>Differences Between Clinic-Referred and Nonclinic-Referred Group on the Parenting</u>

<u>Style Measures</u>

| Measure | Clinic- referred (n =30) Mean <u>SD</u> | Nonclinic-referred $(n = 36)$ Mean SD | t (<u>df</u>) | Significance (2-tailed) | Effect size |
|-----------------------------|--|---------------------------------------|------------------|-------------------------|-------------|
| Parenting Scale total score | 96.83 (20.57) | 85.44 (13.96) | 2.557 (49.49) | p = .010 | .66 |
| Overreactivity | 32.80 (10.11) | 26.19 (7.36) | 2.899 (52.27) | p = .005 | .67 |
| Lax | 31.30 (8.99) | 25.00 (6.76) | 2.662 (52.96) | p = .010 | .74 |
| Verbose | 29.47 (7.08) | 26.44 (5.57) | 2.061 (50.90) | p = .044 | .56 |
| BMSA | 37.73 (9.03) | 32.34 (6.90) | 2.670 (53.79) | <u>p</u> = .010 | .68 |

Table 9

BMSA, Group, and Gender: ANOVA Table

| Source | Sum of squares | <u>df</u> | Mean squares | <u>F</u> | Sig. |
|-------------------|----------------|-----------|-----------------|----------|------|
| Group | 325.618 | 1 | 325.618 | 5.032 | .055 |
| Gender | 13.438 | 1 | 13.438 | .208 | .650 |
| Group X Gender | 26.883 | 1 | 26.833 | .415 | .522 |
| Model | 503.584 | 3 | 167.861 | 2.597 | .061 |
| Residual | 3947.555 | 61 | 64.714 | | |
| Total | 4451.138 | 64 | 69.549 | | |

Table 10

Parenting Scale Total Score, Group, and Gender: ANOVA Table

| Source | Sum of squares | <u>df</u> | Mean squares | <u>F</u> | Sig. |
|-------------------|----------------|-----------|-----------------|----------|------|
| Group | 2171.445 | 1 | 2171.445 | 7.132 | .010 |
| Gender | 221.264 | 1 | 221.264 | .727 | .397 |
| Group X Gender | 15.401 | 1 | 15.401 | .051 | .823 |
| Model | 2344.543 | 3 | 781.514 | 2.567 | .062 |
| Residual | 28876.988 | 62 | 304.468 | | |
| Total | 21221.530 | 65 | 326.485 | | |

Table 11

Parenting Scale Lax Score, Group, and Gender: ANOVA Table

| Source | Sum of squares | <u>df</u> | Mean squares | <u>F</u> | Sig. |
|-------------------|----------------|-----------|--------------|----------|------|
| Group | 385.685 | 1 | 385.685 | 6.066 | .017 |
| Gender | 1.970 | 1 | 1.970 | .031 | .861 |
| Group X Gender | 1.811 | 1 | 1.811 | .000 | .987 |
| Model | 461.649 | 3 | 153.883 | 2.420 | .074 |
| Residual | 3942.306 | 62 | 63.586 | | |
| Total | 4403.955 | 65 | 67.753 | | |

Table 12

Parenting Scale Overreactivtiy Score, Group, and Gender: ANOVA Table

| Source | Sum of squares | <u>df</u> | Mean squares | <u>F</u> | Sig. |
|-------------------|----------------|-----------|-----------------|----------|------|
| Group | 930.885 | 1 | 930.885 | 13.150 | .001 |
| Gender | 340.837 | 1 | 340.837 | 4.815 | .032 |
| Group X Gender | 128.098 | 1 | 128.098 | 1.810 | .183 |
| Model | 1064.575 | 3 | 354.858 | 5.013 | .004 |
| Residual | 4388.880 | 62 | 70.788 | | |
| Total | 5453.455 | 65 | 83.899 | | |

Table 13

Parenting Scale Verbosity Score, Group, and Gender: ANOVA Table

| Source | Sum of squares | <u>df</u> | Mean squares | <u>F</u> | Sig. |
|-------------------|----------------|-----------|--------------|----------|------|
| Group | 387.113 | 1 | 387.113 | 9.044 | .004 |
| Gender | 242.564 | 1 | 242.534 | 5.666 | .020 |
| Group X Gender | 139.562 | 1 | 139.562 | 3.261 | .076 |
| Model | 530.928 | 3 | 176.976 | 4.135 | .010 |
| Residual | 2653.693 | 62 | 42.802 | | |
| Total | 3184.621 | 65 | 48.994 | | |

CHAPTER V

DISCUSSION

The results of the current study show statistically significant relationships between parenting practices and child internalizing symptomology. In addition, the results from regression analyses indicated that certain parenting practices may be predictive of internalizing symptomology. These results will be summarized in the following sections and integrated with previous research findings. Implications and limitations of the current study will then be explored and, finally, recommendations for future research suggested.

Differences Between Clinic- and Nonclinic-

Referred Populations

The clinic- and nonclinic-referred participants in this study were similar in most ways; however, the clinic-referred group was made up of more males and had parents with higher education levels than the nonclinic-referred group. The parental education level in the clinic-referred group may be inflated due to data collection procedures. Some of the subjects ($\underline{\mathbf{n}} = 12$) for the clinic-referred group came from a university-affiliated program. This program may have attracted subjects whose parents were more familiar with a university system, thus inflating the number of years of education in this group.

The results of this study also show that the clinic-referred group had statistically significantly more internalizing symptomology on the ISSC and the CBCL internalizing score than the nonclinic-referred group. As noted previously, this finding was expected due to the fact that participants were selected based on their CBCL internalizing score.

The ISSC results reflect that children in the clinic-referred group reported more symptomology on the total and two factor scores. The first factor reflects negative affect and is characterized by statements such as "I am shy" and "I feel lonely." Factor 2 is considered to reflect positive affect and is characterized by statements such as "I feel important" and "I like the way I look." This suggests that clinic-referred children reported more general internalizing symptomology, more negative affect, and less positive affect than children in the nonclinic-referred group.

Differences were also found between the clinic-referred and the nonclinic-referred groups on the parenting practices measures. The parents of children in the clinic-referred group reported statistically significantly more negative parenting behaviors than parents of the children in the nonclinic-referred group. Three specific types of parenting styles were measured in the current study via the Parenting Scale: overreactive (angry, controlling), lax (permissive, inconsistent), and verbose (detailed long discussions or lectures). In addition, general parenting style was measured by the BMSA. Differences were found between the clinic-referred and nonclinic-referred groups on all scales measuring parenting practices, indicating that a variety of less effective parenting practices are present in the clinic-referred group. This finding is particularly interesting in light of the fact that more parents in the clinic-referred group had higher levels of education than parents in the control group. Traditionally, higher levels of parent education have been associated with better parenting practices (e.g., McHale, 1995). In the current study, the clinic-referred children were more likely to have parents who display more negative parenting behaviors even though the level of their mean level of education was higher than the parents in the

nonclinic-referred sample. This may indicate that families in clinical settings are likely to exhibit a variety of negative behaviors (both children and parents) regardless of educational level.

In sum, the clinic-referred sample differed significantly from the nonclinic-referred sample on internalizing symptomology and parenting behaviors. The groups differed from each other in the predicted direction, with the clinic-referred group showing more internalizing symptomology (on both the CBCL internalizing score and the ISSC) and more negative parenting behaviors (on both the BMSA and the Parenting Scale) than the nonclinic-referred group.

Clinic-Referred Internalizing Scores

Although children in the clinic-referred group scored higher on the measures of internalizing symptomology (ISSC and CBCL Internalizing Scale) than did children in the nonclinic-referred group, it should be noted that clinic-referred children reported relatively low levels of internalizing symptomology on the ISSC. The mean on the ISSC total score was 61.79 for the clinic-referred group. This score is considered to be within the normal range by the ISSC authors (Merrell et al., 1997). A score of at least 68 is needed to indicate a child is at-risk for an internalizing disorder. Therefore, while there are elevations for the clinic-referred group on the ISSC, the average elevation is relatively modest.

The finding of the moderate elevations on the ISSC total score is in contrast to the high levels of internalizing symptomology reported by the parents of the clinic-referred

group on the CBCL. The mean score on the CBCL internalizing score was 70.50 for the clinic-referred group. This is well above the clinical elevation cutoff of 64. Thus, the data reflect an incongruity between the way the parents in this sample reported the internalizing symptomology of their children and the way the children reported their own symptomology. The differences in this mean score on the CBCL and ISSC may be due to a variety of reasons.

First, subjects were selected on the basis of parent-reported internalizing symptoms (the CBCL Internalizing score) and, thus, elevations on the CBCL Internalizing score were preselected and quite large. This same criterion was not applied to ISSC scores. Therefore, there was a wide range of ISSC scores within the clinical sample that may have pulled the mean of the group down. Second, the children in the clinic-referred population had been referred for treatment or had just begun treatment. The lower ISSC scores may reflect a response bias on the part of the children. The children in this sample may have wished to please their therapist, parents, or the researcher by reporting lower levels of symptomology.

Finally, the finding that the ISSC scores do not mirror the CBCL internalizing score may reflect source variance in ratings of internalizing symptomology. Correlations between parent and child report of symptomology are not reported to be high (Achenbach et al., 1987). There have been a number of hypotheses generated for why these discrepancies exist (e.g., measurement error, differing perceptions, inaccurate diagnostic systems; see Sher & Trull [1996] for a review). Regardless of why source variance exists, Achenbach et al. (1987) noted that source variance does not imply that information from

multiple sources is invaluable. Rather, cross-informant information provides a broader view of the clinical profile of the child with each informant providing valuable information that the other informant cannot provide.

In the current study, the CBCL internalizing score is generated via parents' ratings of their perceptions of their children's behavior. The ISSC score is obtained via a child rating himself or herself and provides information on how the child perceives his or her own behavior. Thus, the subclinical levels on the ISSC may reflect measurement error and/or the tendency of the children in this sample to perceive their symptomology as less concerning or less serious than their parent(s) did.

Relationships Between Parenting Practices and Internalizing Symptomology

There were a number of significant relationships noted between scores on the parenting practice measures and scores on the internalizing measures. These relationships indicate statistically significant connections between the childhood expression of internalizing symptomology and parenting behavior. The results for each parenting practice measure will be discussed briefly followed by a summary of the findings.

BMSA

The BMSA was found to be statically significantly correlated with the CBCL internalizing score and the ISSC score, indicating that general negative parenting practices (as measured by the BMSA) are highly related to internalizing symptomology as reported by both parents and children. The current findings extend the original research on the

BMSA that demonstrated significant relationships with externalizing symptomology to show a significant relationship between this measure and internalizing symptomology (August et al., 1995). In addition, the BMSA score was statistically significantly correlated with all of the Parenting Scale subscales, suggesting that the BMSA measures a broad spectrum of parenting practices in a brief form (15 questions).

The Parenting Scale Overreactivity Score

The overreactivity score on the Parenting Scale was also found to be statistically significantly related to the CBCL internalizing score and the ISSC score. The finding that the overreactive parenting style is associated with internalizing symptomology is consistent with previous findings. Fathers who express overt anger (an overreactive characteristic) are noted to have children with anxiety and withdrawal symptoms (Katz & Gottman, 1993). In addition, previous findings suggest that aggressive and harsh styles of parenting by mothers result in more withdrawal, depression, suicidal ideation, and poorer social skills for their offspring in childhood and adulthood (Gallimore & Kurdek, 1992; Straus & Kantor, 1994). Parents of depressed children have also been noted to be characterized by violence (Kashani & Ray, 1985), intolerance, punishment, and contingent affection (Grossman, Poznanski, & Banegas, 1983; Stark et al., 1993). The current study supports these findings and extends them to the broader category of internalizing symptomology in children between the ages of 8 and 12.

The Parenting Scale Lax Score

The Parenting Scale lax score represents parenting practices that are inconsistent

and permissive. This type of parenting practice was found to be significantly related to the CBCL internalizing score but not the ISSC total score. Thus the lax score is associated with parent-reported internalizing symptoms but not child self-reported symptoms. This association goes somewhat beyond the current literature base on parenting. A few researchers have noted this type of parenting to correlate with narrow band disorders. For example, Carro, Grant, Gotlib, and Compas (1993) noted that parental neglect (a more specific category of parenting, but one that is related to the laxness) was a correlate of depression. Thus, the current study extends this finding to the broad band category of internalizing disorders. There may be many explanations for the finding that internalizing parent-reported laxness is not associated with child-reported internalizing symptomology including measurement error. However, an alternative explanation may be that children whose parents are lax view themselves in a more positive light. Thus, they may report fewer problems on a self-report measure.

Parenting Scale Verbosity Score

The Parenting Scale verbosity score did not significantly correlate with either of the internalizing measures. This indicates that there is relatively little association between the style defined by Arnold et al. (1993) as verbosity (excessive discussion, lecturing, and nagging) and internalizing disorders. This finding counters work done on the optimal length of parent-issued commands. Abramowitz et al. (1988) reported that effective discipline practices were short and to the point. Various explanations are available for this discrepant finding. First, the verbosity score may not accurately detect length of interaction. Parents may be unable to accurately detect the length of their interactions and

thus are unable to report differences on a behavioral rating scale. Second, internalizing symptomology may be less effected than externalizing symptomology by the length of the parenting interaction. Much of the work done on parenting commands is done with children who exhibit externalizing behavioral disorders (ADHD, conduct disorder, and oppositional defiant disorder). Compliance with children with externalizing disorders is a major issue, and reducing command length and complexity may be a key to obtaining compliance. However, compliance to a specific command may not be as critical of an issue for children with internalizing disorders, thereby making the length of the interaction less important.

The Parenting Scale Total Score

The Parenting Scale total score is a compilation of the three Parenting Scale subscales (lax, overreactivity, and verbosity). The total score gives a general measure of a variety of negative parenting behaviors. The results from the analyses indicate that the Parenting Scale total score has statistically significant correlations with the CBCL internalizing score but not the ISSC score. This indicates that the total score is related to parent-reported internalizing symptoms of their children, but not child-reported internalizing symptoms. This is a curious finding given that the other broad measure of parenting practices used in this study (the BMSA) was found to be statistically related to internalizing symptomology as reported by both children and parents. This difference in results suggests that although the BMSA and the Parenting Scale total score are highly correlated, they may actually be measuring different constructs.

Summary

The following relationships between the parenting practices measures and internalizing symptomology were found: (a) the CBCL internalizing score was significantly correlated with the BMSA and the Parenting Scale total score, lax score, and overreactivity score; (b) the ISSC total score showed statistically significant relationships with BMSA and overreactivity score of the Parenting Scale; and (c) the verbosity score did not statistically significantly correlate with either internalizing measure.

The above-noted associations between the parenting measures and the internalizing measures is an important addition to the existing literature on parenting styles. Many researchers fail to report associations with the internalizing measures, instead they focus solely on relationships with externalizing symptomology. For example, Arnold et al. (1993) in an article concerning the development of the Parenting Scale, reported correlations for only the CBCL externalizing score and not the internalizing score. It is unclear whether the results of the study did not produce significant internalizing associations, or if they were merely omitted. The present study found that a relationship not only exists between these same two measures (the Parenting Scale and the CBCL internalizing score), but also that this relationship is apparent in an older age group. These highlight the importance of reporting associations for both externalizing and internalizing symptomology if available.

Gender Effects

The current study found that parents of female children tended to score higher on

the Parenting Scale verbosity score and the Parenting Scale overreactivity score than did parents of male children. This indicates that parents of female children rated themselves as having more negative parenting practices in the areas of verbosity and overreactivity.

This effect was noted across clinical status, with no evidence of a gender by clinical status interaction.

Previous research on the effects of child gender on parenting is mixed. Some researchers have found no interaction between child gender and parenting practices (e.g., Bornstein et al., 1998). Other researchers have found that there is a same-gender interaction between parents and children (e.g., McHale, 1995; Noller, 1980), with parents displaying more negative parenting behaviors with children of their same gender. For example, Muller (1995) found that physical abuse and spanking was more likely to occur between a same-gender parent and child than an opposite-gender dyad. Most of the same gender research has focused on aggressive, harsh, or punitive parenting practices and not on parenting practices in general.

There is some indirect evidence in the current study to support a same-gender interaction. Most of the informants in this study were mothers and, as mentioned, higher levels of negative parenting behaviors were found in parents of girls. This may indicate that research regarding same-gender parenting interactions extends beyond harsh aggressive parenting to lax and inconsistent parenting. But clearly more research needs to be done in this area.

Prediction of Internalizing Symptoms

The current project went beyond identifying bivariate correlations between parenting practices and internalizing symptomology. Regression analyses were used to examine how well parenting practices predict internalizing symptomology. Both of the best fit models for predicting the CBCL internalizing score and the ISSC total score included the overreactivity score, once again, indicating that the overreactivity score has predictive value for both parent- and child-reported internalizing symptomology.

The best fit model for the prediction of the CBCL internalizing score also included the lax score. This indicates that internalizing symptomology is more likely to be present if a parent reports too harsh and/or too lenient discipline with their children. The finding that the lax parenting style (when combined with overreactive parenting style) contributes significantly to the prediction of internalizing disorders suggests that the mixing of these two styles may be a particular risk factor for internalizing symptomology. The results of the regression analysis on the ISSC indicated that the Parenting Scale overreactivity score is the only parenting measure that statistically accounts for significant proportions of the variance in the ISSC total score. The amount of variance accounted for by the regression models was quite small for the CBCL and ISSC, indicating that parenting styles are only one piece of a complex system that interacts with childhood internalizing symptomology.

While other factors for internalizing symptomology have not been fully researched, researchers have identified many factors that may be associated with externalizing symptomology. For example, Weiss et al. (1992) investigated the associations between a wide variety of variables (including parenting style) on childhood externalizing behaviors.

They found that temperament, social skills, hostility, parenting behaviors, home environment, and school environment were all statistically significantly related to externalizing behavior. It is likely that future research on internalizing symptomology will reveal some similarly related factors.

Implications

The findings from this study may have implications on a variety of areas. Most notably the current results have implications for the measurement of parenting practices, the relationship between parenting practices and child internalizing behavior, and the treatment of internalizing disorders in children. These implications are discussed below.

An important part of this study was the use of parenting practice rating scales versus parenting attitude scales. Parenting attitude scales have shown little relationship to actual parenting behavior (Holden & Edwards, 1989). However, much of the past research conducted on parenting styles has relied solely on parenting attitude scales (e.g., Hart et al., 1990). The current study is one of the first to examine the association between parenting practices and internalizing symptomology via the use of parenting practice checklists. The finding that the parents of clinic-referred and nonclinic-referred children differ significantly on the parenting measures is important because it suggests that the use of these parent checklists may be helpful to clinicians when conducting assessments with children and their families.

The current findings indicate that lax, authoritarian, and general negative parenting practices have a relationship with internalizing disorders in children. By no means does this

study suggest that all parents of children with internalizing symptomology display negative parenting behavior or that the parenting practices are the only important feature of internalizing symptoms. In fact, the predictive value of parenting practices was low in the current study, suggesting that while the association between parenting practices and a child's internalizing symptoms exists, parenting style contributes only in a limited way to the problem. Other factors (e.g., abuse history, traumatic events, social skills) that were not examined by the current study may have a stronger connection to internalizing symptomology and thus may deserve more clinical attention than parenting practices.

The noted relationships between parenting practices and internalizing symptomology have implications for the treatment of children with internalizing disorders. That is, the current study provides support for the notion that negative parenting practices and internalizing symptomology occur at the same time. Current theory suggests that behaviors that consistently occur at the same time may be working to maintain one another (Bandura, 1977). If this is true, then remediation of childhood internalizing symptomology may be most effective if negative parenting practices are remediated at the same time. Thus, parent training may be useful for parents of children with internalizing symptomology as well as externalizing symptomology.

Limitations of the Current Study

The current study does not speak to the causal association between internalizing symptomology and parenting styles. It has been hypothesized by a variety of researchers that the association between parent behavior and child behavior is bidirectional

(Ambrowitz & O'Leary, 1990; Bandura, 1977; Cicchetti & Toth, 1991). That is, it has been hypothesized that parent behavior elicits certain responses in children and responses from children, in turn, elicit certain responses from their parents. When applied to the current findings, this may indicate that parents may be more harsh or excessively lax with their children, which fosters internalizing behavior, or that the children's behavior may elicit excessively harsh or lax behaviors from their parents.

The current study provides valuable information regarding the associations between parenting styles and internalizing symptomology. However, there are various methodological issues in the current study that limit the generalizability of the results. First, the sample size of the current study is small. While statistically significant correlations and group differences were noted in the current study, the small sample size increases the probability that the results were obtained due to sampling idiosyncracy. Therefore, replication of this study is needed to ensure that the current results are not an artifact of sampling.

A second limitation of this study is the exploratory nature of the design. The current project specifically stated at the outset that all associations between the variables would be explored. However, it is acknowledged that this type of design increases the probability that significant results will be identified in error (Type I error). Future research needs to focus on more rigorously testing hypotheses generated from this exploratory work.

Another problematic feature of this study involves the collection of the data over an extended period of time. The data on the clinic-referred sample were collected over a

13-month period. Subjects with the specified elevation on the internalizing score of CBCL were difficult to identify. This difficulty arose due to lack of practitioner participation, lack of awareness of the symptoms of internalizing disorders in children, and low referral rates for internalizing disordered children in this age range. The time that elapsed between the beginning and the end of the data collection period potentially introduced bias into the results. Future studies should have a readily accessible population of children with internalizing symptomology in order to prevent unnecessary biases.

Another potential limitation was that the current study examined internalizing symptomology, but subjects were not considered to be "pure" internalizers. That is, clinic-referred subjects in this study had to display elevations on the CBCL internalizing score, but, they could also display elevations on the CBCL externalizing score. The results of the current study provide information about the children who have internalizing symptoms regardless of their externalizing status. Internalizing disorders and externalizing disorders have been noted to have a high comorbidity rate (up to 50%; Garber, Quiggle, Panak, & Dodge, 1991), and when examining symptomology (and not clinical syndromes) the co-occurrence of externalizing symptoms and internalizing symptoms can be expected to be even higher. Thus, the current study provides practical information on the children who are likely to exhibit a variety of symptoms with their internalizing symptoms. However, this information may not directly apply to the population of children who exhibit only internalizing behavior problems.

Finally, the current study was conducted in a small community in the western United States with predominantly Caucasian subjects. This obviously limits the

generalizability of these results. Replication of this study with a more diverse sample would increase the confidence that these results are applicable to a variety of populations.

Recommendations for Future Research

Future researchers need to continue to focus on internalizing disorders and their correlates. The identification of the long-term stability of internalizing disorders indicates the importance of early identification and treatment of internalizing disorders. In order to more competently treat childhood internalizing symptomology, researchers must become aware of how internalizing symptomology relates to environmental, biological, and familial factors. Thus, these results should be replicated in other age groups and populations. As with any research, the findings of the current study are considered tentative until replication of the results can be achieved.

One purpose of this exploratory study was to generate hypotheses for future exploration. Hypotheses generated from the current study include: (a) negative parenting practices (particularly lax and overreactive practices) foster and/or maintain childhood internalizing symptoms; (b) children with internalizing disorders elicit negative parenting practices from their parents; (c) altering negative parenting practices will have a positive impact on a child's internalizing symptomology; (d) altering a child's internalizing symptomology will have a positive impact on parenting practices (increase positive behaviors; and (e) in addition, to parenting style, there are other factors associated with internalizing symptomology.

In addition to testing the above hypotheses, several other issues could be

addressed. For example, some have suggested that the children with pure internalizing behavior problems are difficult to identify and represent a minority of children (Kendall, 1992; Reynolds, 1992). This issue still needs to be investigated further. Also, new research could incorporate the use of a variety of different techniques to test the hypotheses studied in this study. Thus, observational techniques, or the use of childreported parenting practices could provide additional support or insight into the relationship between parenting practices and child internalizing symptomology.

Conclusions

In sum, the current study sought to add to the body of literature on parenting practices and childhood internalizing symptomology. This study achieved this objective by identifying significant relationships between overreactive and lax parenting practices and internalizing symptomology in children. This study represents an important advancement in the literature as this current study's primary focus was on internalizing symptomology and parenting practices. Previous work has tended to focus on narrow diagnoses within the internalizing category (e.g., depression) and parenting style or parenting attitudes. In addition, the current results support previous research that indicates parents of clinic-referred children (with internalizing symptomology) display more maladaptive behaviors than parents of nonclinic-referred children. The current findings form a base of understanding about parenting practices and internalizing symptomology; however, much more investigation is needed in these areas.

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APPENDICES

Appendix A: Consent Forms and Measures

| Parent Consent Form |
|--|
| Please check one: |
| I agree to have my child (please list child's name) |
| participate in the project described in the attached letter. I understand that all |
| information obtained about my child will be kept confidential. I also understand |
| that I may withdraw my consent (or my child may decide not to participate) at any |
| time without consequences. |
| Furthermore, I understand that it is not the policy of Utah State |
| University, its agents, or its employees to compensate or provide free |
| medical care in the event that any injury results from the participation in |
| human research project. In the unlikely event that my child becomes ill or |
| injured from participating in the study, I understand that the care I obtain |
| for my child will not be free of charge, even if it is a direct result of his/her |
| participation. |
| I do not wish to have my child (please list child's |
| name) participate in the project described in the attached letter. |
| Please sign and date below. |
| Parent or Guardian's name (please print) |
| Parent or Guardian's signature |
| Date |
| Please return this form to your child's teacher |

Child Assent Script

We would like you to participate in a project we are conducting to help us find out about how kids think and feel. You are being asked to answer some questions about how you feel and think. It will take you about fifteen to twenty minuets to answer all the questions. You do not have to answer these questions, but it would be very helpful if you do. If you do not want to fill out this questionnaire the will be no consequences (so this does not hurt your class grade). You can choose to stop working on the questionnaire at any time. If you do not wish to fill out the questionnaire please sit quietly until all the other students are done. You should not put your name on the questionnaire so that your answers will remain confidential.

Please put your name on the "Assent Form" which has been given to you. Then check the "yes" box if you agree to fill out the questionnaire. If you choose not to fill out the questionnaire please check the "no" box. If you check the "no" box you will not be given a questionnaire and you need to just sit quietly until everyone else is finished.

| Assent | Form | |
|--------|------|--|
| Name | | |
| | | YES- I agree to answer the questionnaire described by |
| | | (name of person administering measures). I understand that I may stop answering the questions at any time. |
| | | NO- I do not want to fill out the questionnaire described by |

Parent Consent Form

Project Title:

Analysis of Internalizing symptoms of children and parental discipline styles: An exploratory Study

Purpose of Study

To obtain more information about children with internalizing symptoms and their parents.

Procedure that will be followed:

In addition to a demographic sheet, parents are asked to complete three measures. Two of these measures inquire about a variety of your beliefs, attitudes and behaviors regarding your child. The third measure inquires about your child's behavior at home. Your child will also be asked to complete one measure regarding their personal beliefs feelings and attitudes. Code numbers will be used on all the surveys and the list of names and code numbers will be kept separate from all the surveys.

Discomfort/Risks

There are no foreseen risks involved in this study.

Benefits to participants:

This study will have no direct benefits to you or your child. The benefits associated with this study involve furthering the clinical understanding of children who have internalizing behavior problems and their families. This understand should lead to earlier identification and better treatments for children who exhibit internalizing symptoms.

Payment for Participation in Study:

Neither you or your child will be directly paid for participating in this study but all families who participate will have a chance to win a \$50 dollar gift certificate in a random drawing.

Reimbursement for Medical Treatment:

It is not the policy of Utah State University, its agents, or its employees to compensate or provide free medical care in the event that any injury results from participation in a human research project. In the unlikely event that my child becomes ill or injured from participating in this study, I understand that any medical care I obtain for my child will not be free of charge, even if it is a direct result of his/her participation.

Confidentiality:

As mentioned above, only code numbers will be used on the surveys. The list of names associated with the code numbers will be kept by the researchers in a locked file cabinet and at all time will remain separate from the surveys. No information will be released or published that contains any names of participants.

Other Information:

If you have additional questions about this study or your rights, or if any problems arise you may contact one of the following researchers:

Kristi Lowe Stewart

(801)797-2008

Gretchen A. Gimpel

(801)797-0721

You and your child's participation in this study is entirely voluntary and you may discontinue participation at any time without consequence. Non-participation or withdrawal from this study will in no way affect you or your child and any benefit to which are otherwise entitled.

I have read and understand this consent form and I am willing to have my child participate in this study.

| Name of parent/guardian | |
|------------------------------|--|
| Signature of parent/guardian | |
| Name of child | |
| Date | |

Clinical Sample

CHILD ASSENT FORM

Project Title:

Analysis of Internalizing symptoms of children and parental discipline styles: An exploratory Study

Purpose of Study

To get more information about how children feel and how children interact with their parents.

Procedure that will be followed:

We would like you to help us find out about how kids think and feel by answering some questions for us. It will take you about fifteen to twenty minuets to answer all the questions. You do not have to answer all these questions, but it would be very helpful if you do. You should not put your name on the questionnaire, so that all of your answers can be kept private.

Payment for Participation in Study:

You will not be paid for participating in this study, but all families who participate will have a chance to win a \$50 dollar gift certificate in drawing.

I am willing participate in this study.

| Name | | | |
|------|--|--|--|
| Date | | | |

Appendix B: Preliminary Analyses Tables

Table B1

<u>Differences Between Clinic-Referred and Nonclinic-Referred Groups on the CBCL Subscales</u>

| CBCL subscales | Clinic-referred $\underline{(n=30)}$ Mean/ \underline{SD} | Nonclinic-referred (n=36) Mean/ <u>SD</u> | <u>t</u> (df) | Significance 2-tailed | Effect sizes |
|---------------------|---|---|----------------|------------------------|--------------|
| Withdrawn | 64.67 (8.72) | 52.00 (3.94) | 6.714 (36.72) | <u>p</u> <.000 | 1.77 |
| Somatic complaints | 63.03 (7.36) | 53.10 (4.30) | 6.431 (45.42) | $\underline{p} < .000$ | 1.69 |
| Anxious/depressed | 60.17 (6.60) | 52.53 (4.56) | 11.493 (49.76) | 000. > <u>a</u> | 2.95 |
| Social problems | 63.20 (9.29) | 53.31 (6.82) | 4.280 (51.36) | $\underline{p} < .000$ | 1.18 |
| Thought problems | 63.57 (9.18) | 53.44 (5.45) | 4.886 (42.78) | $000. > \underline{q}$ | 1.29 |
| Attention problems | 66.70 (8.95) | 54.42 (8.57) | 6.372 (52.48) | $\underline{p} < .000$ | 1.41 |
| Delinquent behavior | 63.43 (9.52) | 53.64 (5.91) | 5.210 (46.98) | $\underline{p} < .000$ | 1.34 |
| Aggressive behavior | 64.67 (9.07) | 52.72 (4.69) | 6.669 (40.42) | <u>000.</u> > <u>q</u> | 1.75 |

Table B2

CBCL, ISSC, and Parenting Scale Correlations

| | CBCL Total | CBCL Intern | CBCL Extern | ISSC Total | ISSC Fac.1 | ISSC Fac.2 | P.S. Total | P.S. Lax | P.S. Over | P.S. Verb | BMSA |
|----------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|-------------|--------------|--------------|------|
| CBCL Total | | | | | | | | | | | |
| CBCL Intern | .926** | | | | | | | | | | |
| CBCL Extern | .865** | .686** | | | | | | | | | |
| SSSC Total | .484** | .495** | .302* | | | | | | | | |
| ISSC Fac. 1 | .435** | .465** | .240 | .941** | | | | | | | |
| ISSC Fac. 2 | .393** | .369** | .277* | .630** | .347** | | | | | | |
| P.S. Total | .277* | .373** | .191 | .213 | . 244 | .044 | | | | | |
| Lax | .280* | .368** | .221 | .132 | .159 | .049 | .761** | | | | |
| | | | | | | | | | | | |

| | CBCL Total | CBCL Intern | CBCL Extern | ISSC Total | ISSC Fac.1 | ISSC Fac.2 | P.S. Total | P.S. Lax | P.S. Over | P.S. Verb | BMSA |
|-------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|-------------|--------------|--------------|------|
| Over | .334** | .343** | .282* | .309* | .295* | .154 | .635** | .411** | | | |
| Verb. | .177 | .242 | .098 | .071 | .087 | 012 | .691** | .507** | .424** | | |
| BMSA | .312** | .352** | .335** | .265** | .278* | .106 | .631** | .481** | .511** | .286* | |

^{*} Significant at the .05 level ** Significant at the .01 level

Table B3

<u>CBCL Broad and Narrow Band Correlations</u>

| | CBCL Total | CBCL-intern | CBCL- extern | CBCL- withdr | CBCL-som. | Cbcl- anx/dep | Cbcl- social | Cbcl-thought | Cbcl- atten | Cbcl-delinq | Cbcl-agress |
|----------------|---------------|-------------|-----------------|-----------------|-----------|------------------|-----------------|--------------|----------------|-------------|-------------|
| CBCL Total | | | | | | | | | | | |
| Cbcl Intern | .926** | | | | | | | | | | |
| Cbcl Extern | .865** | .686** | | | | | | | | | |
| withdr | .682** | .746** | .492** | | | | | | | | |
| somatic | .626** | .641** | .500** | .298* | | | | | | | |
| anx/dep | .828** | .887** | .600** | .756** | .445** | | | | | | |
| social | .579** | .506** | .413** | .327** | .383** | .489** | | | | | |
| thought | .653** | .626** | .533** | .365** | .490** | .608** | .533** | | | | |
| atten | .787** | .691** | .616** | .490** | .489** | .715** | .620** | .655** | | | |
| delinq | .604** | .439** | .769** | .239 | .437** | .374* | .232* | .449** | .403** | | |
| aggres | .757** | .628** | .856** | .455** | .528** | .555** | .482** | .534** | .577** | .657** | |
| P.S. Total | .277* | .373** | .191 | .498** | .270* | .313* | 190 | .136 | .118 | .086 | .140 |
| | | | | | | | | | | | |

(table continues)

| | CBCL Total | CBCL-intern | CBCL- extern | CBCL- withdr | CBCL-som. | Cbcl- anx/dep | Cbcl- social | Cbcl- thought | Cbcl- atten | Cbcl- delinq | Cbcl-agress |
|----------------|---------------|-------------|-----------------|-----------------|-----------|------------------|-----------------|------------------|----------------|-----------------|-------------|
| P.S. Lax | .280* | .368** | .221 | .452** | .235 | .338** | 130 | .086 | .099 | .024 | .221 |
| P.S. Over | .334** | .343** | .282* | .303* | .290* | .277* | .003 | .176 | .285* | .129 | .195 |
| P.S. Verb | .177 | .242 | .098 | .366** | .258* | .277* | 054 | .222 | .151 | .096 | .118 |
| BMSA | .312** | .352** | .335** | .471** | .144 | .291* | 077 | .048 | .106 | .247* | .263* |
| ISSC Total | .484** | .495** | .302* | .256* | .393** | .424** | .294* | .282* | .467** | .211 | .220 |
| ISSC Fac. 1 | .435** | .465** | .240 | .257* | .360** | .402** | .233* | .257* | .392** | .173 | .194 |
| ISSC Fac. 2 | .393** | .369** | .277* | .207 | .285* | .331** | .309* | .220 | .427** | .154 | .170 |

^{*} Significant at the .05 level ** Significant at the .01 level

Appendix C: The Parenting Scale

not picking up toys

throwing food

lying

At one time or another, all children misbehave or do things that could be harmful, that are "wrong", or that parents don't like. Examples include:

whining

hitting someone

forgetting homework

| having a tantrum running into the street | refusing to go to bed arguing back | coming home late wanting a cookie before dinner |
|---|--|---|
| Parent have many different ways or Below are items that describe some | styles of dealing with these ty styles of parenting. | pes of problems. |
| Each item below has two discription line that best describes your style of child who is participating in our produces. | f parenting during the past two pject. Please complete all item | months with your son all pages. |
| SAMPLE ITEM At meal time I let my child decide ; ; how much to eat. | | I decide how much my child eats. |
| By marking the center line this mea how much your child eats, the other | half of the time your child de | ecides how much to eat. |
| When my child misbehaves I do something ; ; ; right away. | | I do something about it later. |
| 2. Before I do something about a part I give my child several ; ; reminders or warnings. | oroblem | I use only one reminder or warning. |
| 3. When I'm upset or under stress I am picky and on my; ; ; child's back. | | I am no more picky than usual. |
| 4. When I tell my child not to do s I say very little. | omething | I say a lot |
| the pestering. | _i_i_i_i_i_i | I can't ignore the pestering. |
| Developed by Susan G. Cfl.cary, David S. Amold Lisa S. Wolff & Maureen M. Acker, Psychology Dept. University at Stony Brook, NY 11794 | | |

| 6. When my child misbehaves I usually get into a long | <u>:</u> | :_ | : | <u>:</u> | : | | _;_ | : | I don't' get into an |
|---|--------------|-------|-----------|-----------|----|----|----------|----------|---|
| argument with my child. 7. I threaten to do things that I am sure I can carry out. | <u>:_</u> | : | ; | :_ | : | : | : | _: | argument. I know I won't actually do. |
| 8. I am the kind of parent that Sets limits on what my child is allowed to do. | <u>:</u> | ; | :_ | : | :_ | :_ | _;_ | _i | Lets my child do whatever he/she wants. |
| 9. When my child misbehaves I give my child a long lecture. | <u>:</u> | : | | _;_ | :_ | :_ | <u>;</u> | i | I keep my talks short and to the point |
| 10. When my child misbehaves I raise my voice or yell. | :: | ; | : | : | :_ | _; | _; | i | I speak to my child calmly. |
| 11. If saying no does not work right I take some other kind of action. | | | | : | : | _: | ; | _: | I keep talking and trying to get through to my child. |
| 12. When I want my child to stop of I firmly tell my child to stop. | doing ; ; | SOI | netl | hing : | ; | :_ | :_ | <u>:</u> | I coax or beg my child to stop. |
| 13. When my child is out of my sig I often don't know what my child is doing. | | | <u>:</u> | : | ; | ; | : | : | I always have a good idea of what my child is doing. |
| 14. After there's been a problem w I often hold a grudge. | | | | | | : | : | | Things get back to normal quickly. |
| 15. When we're not at home I handle my child the way I do at home. | :: | | : | : | : | :_ | : | | I let my child get away with a lot more. |
| 16. When my child does something I do something about it every time it happens. | I don | ı't l | like : | : | : | : | : | <u>:</u> | I often let it go. |

Developed by Susan G. O'Leary, David S. Arnold Lisa S. Wolff & Maureen M. Acker, Psychology Dept. University at Stony Brook, NY 11794

| 17. W | hen there's a problem with a Things build up and I do things I don't mean to do. | | | | | :_ | :_ | : | _: | Things don't get out of hand. |
|--------|--|------------|----------|----|-----|----------|----|-----|----------|---|
| 18. W | hen my child misbehaves, I s Never or rarely | | | | | | | | | nild Most of the time. |
| 19. W | hen my child doesn't do wha I often let it go or end up doing it myself. | | | | _;_ | : | :_ | _;_ | _: | I take some other action. |
| 20. W | hen I give a fair threat or wa I often don't carry it out. | | | | :_ | :: | : | :_ | _: | I always do what I said. |
| 21. If | saying no doesn't work I take some other kind of action. | <u>:</u> _ | :_ | : | _:_ | : | :_ | :: | _; | I offer my child something nice so he/she will behave. |
| 22. W | Then my child misbehaves I handle it without getting upset. | ; | : | : | : | <u>:</u> | : | : | _; | I get so frustrated or angry that my child can see I'm upset. |
| 23. W | Then my child misbehaves I make my child tell me why he/she did it. | <u>:</u> | <u>.</u> | :_ | :_ | ; | : | : | _: | I say "No" or take some other action. |
| 24. If | my child misbehaves and the I handle the problem like I usually would. | | | | | | _; | : | _: | I let it go that time. |
| 25. W | hen my child misbehaves I rarely use bad language or curse. | <u>:</u> | : | ; | :_ | : | : | ; | <u>:</u> | I almost always use bad language. |
| 26. W | hen I say my child can't do s I let my child do it anyway. | | | | | .i | : | :: | | I stick to what I said. |

| | 27. When I have to handle a problem I tell my child I'm sorry : : : : : : ! I don't say I'm sorry. about it. |
|---|--|
| | 28. When my child does something I don't like, I insult my child, say mean things, or call my child names |
| | Never or Rarely. |
| | 29. If my child talks back or complains when I handle a problem I ignore the complaining. : : : : : I give my child a talk and stick to what I said. about not complaining. |
| | |
| j | 30. If my child gets upset when I say "No" |
| | I back down and give : ; ; ; : : I stick to what I said. in to my child. |

Appendix D:

Behavioral Management Self-Assessment

BMSA

| Please complete the following questions by checking the space that most accurately describes how you interact with your child who is participating in the research project. |
|---|
| 1) When I ask my child to do something, I am clear and to the point in my request Never::_:_: Always |
| 2) During the day, I try to take notice when my child is being good and let him/her know I like how he/she is behaving. Never:: Always |
| 3) When my child gives me a hard time ("whining, yelling") after I ask him/her to do something, I give up because it is too much of a hassle to continue. Never::: Always |
| 4) I praise my child for doing something I like or approve of. Never:::_:_: Always |
| 5) I am not consistent in disciplining my child. Never:: Always |
| 6) I do a good job of keeping track of my child's misbehavior. Never *: Always |
| 7) To change my child's undesirable behavior, I try to correct little problems first and gradually work up to what I want him/her to do. Never:::: Always |
| 8) When I have had a problem with my child, I set aside some time so we can talk about the problem together. |
| Never::_Always |
| 9) I have to nag and/or scold my child to get him/her to do something I have asked. Never 4: Always |
| 10) When my child fails to do what I ask, I end up doing it Never : Always |
| 11) When I punish my child I do it quickly, and do not let things get out of hand. |

| 12) I am firm and consistent in disciplining my child. |
|--|
| Never::::: Always |
| 13) I threaten my child if he/she does not do what I want. |
| Never :::: Always |
| |
| 14) I yell or scream at my child when he/she gets on my nerves. |
| Never:::_:Always |
| 15) When I give my child commands, I do not follow through to see that he/she obeys. |
| Never : : : : : : : : : : : : : Always |