12-17-2004

The Enhanced Effectiveness of Parent Education with an Emotion Socialization Component

Angela Walter Keyees
University of New Orleans

Follow this and additional works at: https://scholarworks.uno.edu/td

THE ENHANCED EFFECTIVENESS OF PARENT EDUCATION
WITH AN EMOTION SOCIALIZATION COMPONENT

A Dissertation

Submitted to the Graduate Faculty of the
University of New Orleans
in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy
in
Applied Developmental Psychology

by

Angela Walter Keyes

B.S., Xavier University of Louisiana, 1993
M.S., University of New Orleans, 2002

December 2004

Acknowledgements

There are so many people I would like to recognize for their invaluable and steadfast assistance in helping me reach this final goal. First and foremost, I must recognize my family for their support, patience, and understanding over the past four years. Thank you to Charles for your love, especially when I was unlovable. To Charles II and Gerald, you have been my greatest sources of inspiration and motivation. Watching you grow into such incredible people overwhelms me and gives me so much joy. I couldn't be more proud of you. No matter what else I do in my life, my greatest and most satisfying accomplishment is being your Mom. To the rest of my family, thank you for being there to listen and helping out with the things I would never have been able to do alone, but most of all for believing that I could do this. To the members of my committee, especially Dr. Amanda Morris, thank you for your guidance and support, and for sharing your knowledge with me. To my undergraduate staff, thanks for showing up to babysit and helping my groups run smoothly. My data would not have been collected without you. Finally, many, many thanks to my friends who have been a source of support throughout this inherently stressful, yet rewarding process. Thanks for letting me lean on you when I needed to and for making me laugh when I wanted to cry. Without all of you, I would not have had to confidence to know that I make it through school with my sanity intact. I am very lucky and I love you all.

Table of Contents

List of Figures

Abstract

Parent education programs were introduced nearly 30 years ago with a primary focus on teaching parents strategies to identify and reduce incidences of noncompliance in their children, and have been the single most successful treatment approach for reducing problem behavior. However, few parent education programs address emotion regulation and its role in children's development despite the fact that research has consistently demonstrated that children who are unable to successfully regulate emotions are more likely to develop behavioral problems. Specifically, most programs fail to address the concepts of effortful control and negative affectivity, two important components of child temperament, and their effects on children's behavior. Research has suggested that children who are emotionally regulated develop greater social competence, resulting in better, more positive, relationships. Thus, parents who teach their children to express and regulate their emotions in socially appropriate ways promote the development of prosocial behaviors in their children. In response, the goal of this study was to examine whether adding an emotion component aimed at teaching parents successful strategies for socializing children's emotions would affect overall parenting and children's emotion regulation above and beyond a traditional behavioral model.

Twenty-five parents participated in a three-week parent education program. Parents learned strategies for managing their children's misbehavior. Moreover, parents learned about temperament, how these dispositional traits affect children's behavior, and successful strategies for aiding children in emotion management. At each session, parents completed measures designed to assess their children's temperament and behavior. Additionally, parents completed measures regarding their parenting practices and styles as well as feelings of parental efficacy.

Repeated measures ANOVAs were run to determine whether changes in children's temperament or parenting emerged over time. Hierarchical multiple regressions were also computed to determine the effects of parents' practices, styles and efficacy on change in children's levels of effortful control and negative affectivity. Results suggest that parents' choice of disciplinary strategies affects children's ability to regulate their emotions, and that participation in the emotion module positively affected overall parenting and children's emotion regulation.

Introduction

Being a parent is often thought of as the most difficult job in the world, yet it requires no formal education or training. Parenting entails making a lifetime commitment to protect and nurture children. No other role in life carries with it such intense time and energy requirements, with no tangible (i.e., monetary) compensation. Most parents find the experience of parenting to be gratifying and enlightening. However, a minority of parents feel overwhelmed and burdened by the responsibility and work involved in child care, and derive little enjoyment from parenting (Coleman & Karraker, 1997). These negative feelings affect not only the disciplinary practices employed, but the beliefs and attitudes these parents hold toward rearing children.

Research on parenting is ongoing in the field and studies examining the factors that are believed to determine parenting styles, beliefs, attitudes, and practices have been widely conducted (Baumrind, 1971; Grolnick & Ryan, 1989; Rothbaum & Weisz, 1994; Rubin, Nelson, Hastings & Asendorpf, 1999). As a result, numerous parenting programs have been developed that teach parents effective strategies for managing misbehavior in their children. These programs have demonstrated effectiveness in reducing incidences of child noncompliance in the majority of children (Forehand & McMahon, 1981, 2003; Sanders, 1999; Sanders, Markie-Dadds, Tully & Bor, 2000; Webster-Stratton, 2000; Webster-Stratton & Hammond, 1997; Webster-Stratton, Reid & Hammond, 2001; Webster-Stratton & Taylor, 2001). However, factors that likely impact successful implementation of these programs are often not taken into account. The most important of these is the unique characteristics of the child.

Because no two children are alike, their reactions to and the outcomes of traditional behavior modification programs likely differ based on several different factors. Specifically, it is likely that individual differences in factors such as child temperament, emotion regulation and

reactivity, and behavioral regulation affect parents' ability to apply the strategies learned in parent education programs. Consequently, the effectiveness of these programs may often be compromised. When parents attempt to implement new parenting skills unsuccessfully, they may lose confidence in their ability to bring about changes in their children's behavior, which in turn affects their commitment to and belief in the effectiveness of the techniques learned. Thus, it is especially important for parents to experience success in order to increase their feelings of self-efficacy (i.e., their belief in their ability to effectively manage their children's behavior), as this has been related to more positive expectations of children and greater satisfaction with the parenting role (MacPhee, Fritz, & Miller-Heyl, 1996; Teti & Gelfand, 1991).

A large body of research exists which examines the link between parenting and child adjustment. However, surprisingly little research has been conducted on the effects of child temperament on parents' subsequent practices and beliefs following the completion of a parent education program. It is this relationship which will be investigated in the following study.

The primary goal of this study is to examine whether child temperament influences the strength and/or direction of the relationship between participating in a parent education program and improvement in parents' effectiveness in managing their children's behavior. There is also a focus on evaluating the effectiveness of a program aimed at educating parents regarding the effects of child temperament on behavior and how this information leads to decreases in children's problem behaviors.

The main part of this document is divided into four major sections. The first section provides an introduction of the research topic. Within this section, several components are addressed. First, some of the empirically supported parent education programs that are customarily utilized in various clinical and other mental health settings are reviewed and

2

critiqued in terms of their fundamental tenets and sensitivity to the distinct characteristics of children at various developmental stages. This subsection also describes variations that are unique to certain programs and addresses the limitations found among them.

The next subsection of this document discusses the literature on parenting and the impact of parenting on children's socioemotional development. Moreover, emotions and their effects on behavior and the emotional climate of the home are addressed. Specifically, the dimensions of parenting that have been found to be most beneficial to children are discussed. In addition, parents' socialization of their children's behavior is discussed along with the effects of parents' reactions to their children's negative emotions on their social and emotional development. This section ends with a discussion of the importance of parents' awareness of their own feelings about emotions, how to teach children to identify and label their emotions, and how these factors relate to children's regulatory abilities.

The third subsection addresses characteristics of children that interact with parenting. Of particular importance is child temperament, as it is believed that temperamental variations affect the manner in which parents manage children's behavioral and emotional expression. The influence of children's temperament on continuing socioemotional development is also discussed. Finally, the temperament construct of effortful control, the ability to inhibit responses or choose another response to an event, is discussed specifically.

The last two subparts of section one examine child temperament as moderating the relationship between parent education programs and parents' subsequent practices and beliefs and describe the research design for the present investigation. Examining the role of temperament in parents' implementation of differing strategies for managing children's behavior

may result in a better understanding of the mechanisms responsible for successes achieved as a result of participating in parent education programs.

The second section of this document describes the research plan and methods employed to investigate the research questions posited. The third section presents the result of statistical analyses conducted on the data collected. Finally, the fourth section discusses these results and their implications for future research.

Overview of Empirically-Supported Parent Education Programs

Nearly 30 years ago, parent education programs were introduced for use by mental health professionals with their clients. Since their inception, the primary focus has been on teaching parents strategies to identify and reduce incidences of noncompliance in their children. Thus, having parents serve as the conduit through which therapeutic change in children's behavior is achieved (Miller & Prinz, 1990). The techniques used in parent education programs are based on the principles of social learning theory and operant conditioning, which describe how behaviors can be influenced by a variety of stimuli and reinforcers. Parent education programs have been used primarily to address externalizing disorders (i.e., oppositional defiant disorder, conduct disorder) in preschool and school-aged children, and have been the single most successful treatment approach for reducing problem behaviors associated with these disorders (Brestan & Eyberg, 1998; McMahon, 1999). As a result, these programs have become the most powerful and thoroughly evaluated interventions available to clinicians and parent educators (Sanders et al., 2000) and evidence the greatest empirical support.

Parent education program sessions are typically conducted by a trained facilitator who teaches parents to respond more effectively and realistically to normal occurrences of misbehavior in order to promote prosocial behavior and decrease noncompliance in their children

4

(Webster-Stratton & Taylor, 2001). By design, these curricula are delivered over a brief period of time and most average fewer than ten sessions; some can be administered in as few as one to four sessions for minor misbehavior (Sanders, 1999). During these sessions, parents are taught how to operationally define problem behaviors by directly observing their children's actions. This is accomplished by conducting a functional analysis of the target behavior in order to determine the causes and consequences that serve to sustain the behavior (Kazdin, 1997a), thereby providing insight into the cause of the misbehavior and parents' possible role in the maintenance of that behavior.

Once the functional analysis is complete and parents are able to reliably recognize and describe behaviors of concern, they are trained in various monitoring methods (e.g., time, duration, intensity) in order to determine baseline levels in the occurrence of the behavior. After a brief monitoring period, parents are instructed in the use of behavior modification techniques (e.g., positive and negative reinforcement, rewards, ignoring) in order to increase child compliance (Forehand & McMahon, 1981, 2003). Parents are then given the opportunity to learn and practice new parenting skills and continue to receive support and feedback in order to enhance competence and confidence in their ability to bring about positive changes in their children's behavior.

Research has demonstrated that conduct problems in children develop and are maintained as a result of maladaptive parent-child interactions (Kazdin, 1997b). Thus, most parent education programs strive to modify the pattern of parent-child interactions (i.e., eliminate coercive interactions) and to increase prosocial behavior in children (Miller & Prinz, 1990) so that appropriate behaviors are reinforced and modeled within the family (Kazdin, 1996a). Emphasis is placed on helping parents to develop new skills and to implement different

behaviors designed to increase child compliance, such as establishing rules, providing positive reinforcement for appropriate behaviors, using time out or loss of privileges, and negotiating compromises (Kazdin, 1997b).

A review of the empirical literature reveals a number of studies examining the effectiveness of parent education programs with diverse populations. Randomized, controlled outcome trials have been conducted with children of varying ages and differing degrees of severity of disorder (Kazdin, 1993; Miller & Prinz, 1990; Patterson, Dishion, & Chamberlain, 1993). Treatment effects have been demonstrated by marked improvements in children's behavior. Moreover, effects of treatment have been found to reduce problematic behaviors in treated children to within normative (i.e., nonclinical) levels based on community samples (Kazdin & Weisz, 1998). Specifically, in a study by Kazdin, Siegel and Bass (1992), participation in a parent education program was associated with significant reductions in overall child dysfunction, increases in prosocial competence, and decreases in aggressive, antisocial and delinquent behaviors. Importantly, these improvements were evident across settings and had been maintained after a one-year follow-up. These findings provide clear evidence that parent education programs are effective in modifying children's behavior.

Behaviorally-oriented programs can also be evaluated in terms of their advantages. Significant improvements in child behavior have been demonstrated across settings and over time, which typically surpass those of other treatment procedures (Kazdin, 1996a). The availability and accessibility of treatment manuals and training materials for both parents and therapists is also beneficial (Forehand & McMahon, 1981). Moreover, the implementation of video-based training, supplemented by facilitator-led discussion, has been associated with clinically significant changes in child behavior following treatment (Webster-Stratton, 1994).

Finally, parent education programs are cost-effective when administered in small groups and are easily implemented in community-based settings (Kazdin, 1997a).

Variations in Parent Education Programs

While parent education programs typically focus on teaching positive parenting practices and parent-child interactions, as well as consistent reinforcement of behavior, programs that include an educational component that emphasizes problem-solving skills have also been developed. This programmatic variant serves to highlight the range of cognitive-behavioral abilities each child brings to diverse interpersonal situations (Kazdin et al., 1992). Cognitive-behavioral problem solving skills training focuses on the cognitive processes and deficits that are thought to mediate maladaptive social interactions (Kendall & Braswell, 1985). Treatment goals aim to help children develop appropriate social skills, enhance their problem solving ability, and utilize anger management strategies. Adding the cognitive-behavioral component, in conjunction with the standard child management component, has been found to reduce conduct problems (Kazdin et al., 1992; Webster-Stratton & Hammond, 1997) and promote more positive peer interactions in controlled trials (Webster-Stratton & Hammond, 1997).

Another element, which is a core component of many parent education programs, involves promoting warmth during parent-child interactions and eliminating harsh parenting practices. Empirical research suggests that the lack of warm, positive parent-child relationships increases children's risk for developing serious behavioral and emotional problems (Coie, 1996; Loeber & Farrington, 1998). Parents are therefore encouraged to spend quality time regularly (i.e., daily) with their children in order to foster a warm and nurturing parent-child relationship, thereby allowing them to provide a model of parenting. This in turn increases children's

compliance and feelings of trust and security, and results in fewer incidences of behavior problems.

Another variation in parent education programs involves the differences in the format used to convey information to parents. Sessions may be conducted either individually, in group settings, through regular telephone contact, or through community-wide dissemination of information. The format chosen depends on a multitude of factors, some of which include the program being implemented, the theoretical orientation of the service provider, and the severity of the child's behavior problem. Some programs also use supplemental materials such as videotapes and handouts that present themes, principles, and procedures for parents of conduct-disordered children to utilize in improving their children's behavior. Yet another variation that has been implemented in some programs involves educating parents on the fundamentals of social learning theory. Research indicates that providing parents with in-depth knowledge of social learning principles, rather than simply teaching them techniques, enhances treatment outcome and generalizability (Forehand & McMahon, 1981; Kazdin, 1997a) due to parents' increased understanding of reciprocities in parent-child interactions.

To summarize, current parent education programs are designed to manage children's misbehavior and are based on the tenets of social learning theory. Behavioral problems are corrected using the principles of operant conditioning whereby children learn to associate compliance with positive outcomes. Parents are taught to identify target behaviors and to reinforce consistently these behaviors in order to increase children's prosocial behavior and/or decrease noncompliance. Additionally, parent education programs have evidenced strong empirical support in the literature. Although these programs have been proven effective in

producing positive changes in children's behavior, other factors should be considered which may impact their effectiveness.

Limitations of Parent Education Programs

Although parent education programs are widely used by mental health professionals, factors exist that interfere with parents' ability to implement these programs. First and foremost, parent education programs place demands on parents to practice and master newly learned skills at home. Uncertainty regarding the competent use of behavioral strategies may partially account for the high dropout rates found among participants in parent education programs (Kazdin, 1996b). Related to this idea, scheduling conflicts due to competing demands may affect parents' ability to attend regular parent education sessions. Missed sessions and decreased attendance adversely impact parents' mastery of behavioral strategies and result in missed opportunities for practicing newly learned skills (Kazdin & Weisz, 1998) and eventual abandonment of the program entirely.

A second factor that precludes successful implementation of parent education programs concerns limited training opportunities for professionals who are interested in learning the approach. Although continuing education programs can familiarize professionals with intervention techniques, it is only through more extensive training that the fundamental tenets of the program can be mastered (Kazdin, 1993). Finally, treatment, although proven effective with younger groups, has not been applied as often for use with adolescent populations. It is therefore necessary to apply a developmental approach to the implementation of parent education programs.

Despite the successes achieved by many participants in parent education programs, other limitations related to the manner in which parent education programs are designed must also be

identified. First, parent education programs tend to be intervention, as opposed to prevention oriented. This is likely due to the fact that parents usually do not seek out or receive services until their children are displaying overt, and sometimes unmanageable, behavioral problems. By this time, children often are out of control, making it more difficult and time consuming to realize longstanding results.

Similarly, most programs focus on remediation of externalizing problems such as aggression and oppositionality, since these behaviors are most disruptive across settings (Webster-Stratton & Taylor, 2001). Parents are concerned with helping their children to eliminate these types of behaviors so that they may develop appropriate classroom behaviors and prosocial skills. Thus, the majority of parents receiving services have children who engage in externalizing behaviors. Parents whose children experience feelings of depression and anxiety do not usually seek out services, as these children may not manifest serious behavioral difficulties.

A somewhat related limitation involves the relative efficacy of parent education programs. Although traditional programs have been proven in reducing or preventing behavioral problems in children, these studies were developed and implemented with primarily Caucasian, middle-class parents. Thus, studies have shown that parent education programs yield less effective results with low income, minority families (Dumas & Wahler, 1983). Moreover, low-income families are more likely to drop out of treatment, fail to show meaningful improvement following treatment, and to deteriorate over time (Kazdin, 2000; Kazdin & Wassell, 1999).

As previously mentioned, parent education programs typically are not developmentally sensitive, using the same techniques to effect change in children of various ages (e.g., 3 to 12 year olds). Developmental research teaches us that children differ in terms of physical and

cognitive abilities, language, social skills and competencies, and problem solving abilities (Sanders, 1999). Therefore, it is imperative that parents have an understanding of what behaviors and abilities are reasonable and appropriate for their children at each developmental stage. Failure to acquire this knowledge puts children at greater risk for adverse developmental outcomes and problematic parent-child interactions. Moreover, although parent education programs have been found to be effective in reducing dysfunction in children, processes within the child (e.g., hostile attributional bias) exist that often cannot be altered readily by the use of behavioral strategies (Kazdin, Esveldt-Dawson, French & Unis, 1987). These issues must be given proper consideration if parent education programs are to be successful in modifying children's misbehavior.

The final limitation, which this study specifically addresses, is that few parent education programs specifically address temperament, specifically emotion regulation, and its role in children's development. Despite the fact that research has consistently demonstrated that children who are unable to successfully regulate emotions are more likely to develop behavioral problems (Smith, Adelman, Nelson & Taylor, 1988), most programs fail to address the concepts of effortful control and negative affectivity and their effects on children's behavior. Research has further suggested that children who are emotionally regulated tend to develop greater social competence, which results in better, more positive, relationships with parents, other family members, and peers (Eisenberg, Fabes, Guthrie, & Reiser, 2000). Thus, parents need to teach their children to express and regulate their emotions in socially appropriate ways in order to promote the development of prosocial behaviors (Eisenberg, Cumberland & Spinrad, 1998). Because of these limitations, researchers have begun to develop new approaches aimed at

11

reducing incidences of behavioral problems and noncompliance in children, while also increasing emotion regulation and social competence.

Description of Current Programs

The following section provides an overview of some of the most prominent and frequently utilized parent education programs. Each is based on social learning principles and is implemented in generally the same way. The preceding discussion provides a more comprehensive review of these empirically supported programs. Thus, a brief examination of the basics of each program will be given.

Forehand and McMahon (1981) developed one of the first, and most often cited, parent education programs. In their book, *Helping the Noncompliant Child*, they outline a treatment program for use by mental health professionals. The program can be implemented primarily with parents of young children (i.e., 3 to 8 years) who are dealing with behavioral noncompliance. Sessions with parents are conducted individually in a clinical setting where parents are taught the skills they need to modify their children's behavior. Core skills include giving attends, giving rewards, ignoring, issuing commands, and implementing time out. Parents are allowed time to practice these skills in session through role playing. Between sessions, parents are given homework assignments which provide additional opportunities for practicing newly learned skills at home with their children.

Forehand and McMahon (1981) describe two phases of the program. In the first phase, parents are taught specific ways to increase good behavior and in the second phase, parents learn to deal directly with noncompliance (e.g., giving clear directions and providing consequences). The program is designed to be administered over 10 sessions during which time both parent and child are present. In this way, the therapist serves as a coach, assisting the parent in acquiring

new skills and providing support. At the conclusion of the last session, a determination is made regarding whether the program has effectively reduced child noncompliance or a higher, more intensive level of intervention is required.

Another well-known program, The Incredible Years, is an empirically supported, manualized treatment program consisting of group-based education designed to reduce externalizing behaviors in children (Reid & Webster-Stratton, 2001). This program is unique in that it has both a parent and a child component. As part of the parent component, parents are taught basic behavior modification skills such as limit setting, praise and rewards, and discipline. Videotaped vignettes are used to illustrate appropriate disciplinary responses and to generate discussion among parents about issues such as communication, problem solving, anger management, and academic success. Parents complete and review homework assignments and have an opportunity to role play and rehearse newly learned skills. Doing so increases their competence and confidence in their parenting abilities and increases the likelihood that they will be effective in changing behavior.

The child component of the program addresses topics such as school rules, feelings, making friends, anger management and teamwork. Learning is enhanced by activities, games, and homework assignments. Children are encouraged to discuss and model socially appropriate behaviors and are given opportunities to practice these skills in session. Empirical research suggests that child focused interventions that are designed to directly teach children social, emotional and cognitive competence by addressing issues such as appropriate social skills, effective problem solving, anger management and classroom behavior results in better treatment outcomes for children (Kazdin et al., 1987; Webster-Stratton, 2000).

Participants in the Incredible Years program have demonstrated long-term treatment gains when compared with participants from parent education programs that focus only on behavior modification strategies (Webster-Stratton & Hammond, 1997), which suggests that addressing cognitive factors adds to the effectiveness of behavioral parent education programs. Thus, focusing on these cognitive deficits has practical implications in that changes in interpersonal interactions will likely lead to reductions in behavioral difficulties (Kazdin et al., 1987).

The effectiveness of combined parent and child treatments was demonstrated in a study comparing a standard parent education program to one with an added child component (Webster-Stratton, Reid & Hammond, 2001). Children in the experimental group demonstrated clinically significant improvements in conduct problems and the ability to effectively use problem-solving strategies. Effects were sustained over time and generalized across settings and behaviors. Children in the wait list control condition (i.e., those receiving standard parent education programs at a later time) failed to achieve the same results. Similar findings have been demonstrated in other studies (Conduct Problems Research Group, 2002; Kazdin et al., 1992; Kazdin & Wassell, 2000), supporting the notion that a parent education program which combines behavior modification for parents and cognitive skills training for children leads to improved treatment outcomes.

Another parent education program which is slowly gaining popularity among practitioners in the United States is the Triple P Positive Parenting Program. Triple P is a multilevel program which aims to prevent severe behavioral, emotional and developmental problems in children by educating parents regarding normal child development, anticipatory

guidance, and strategies for dealing with misbehavior. Consistent with the other parent programs reviewed, Triple P is based on social learning principles.

The Triple P design utilizes a multilevel approach. Initial levels are more prevention-focused, serving as a resource for disseminating information on issues of concern to parents. Parents of children with more severe behavioral difficulties receive more intensive services, beginning at a higher (i.e., intervention-oriented) level. This multilevel strategy is believed to maximize efficiency, contain costs, avoid waste and overservicing, and ensure wide community implementation (Sanders, 1999). Triple P can be administered in either individual or group settings and utilizes video-based learning in order to illustrate strategies for effective child management and to allow parents to observe how newly learned skills should be implemented. As with the Forehand and McMahon program and the Incredible Years, parents are taught to identify and reinforce behaviors during sessions through role play and modeling so that these behaviors generalize to the home settings. Tip sheets, which provide information on a wide array of problem behaviors that parents encounter, describe the causes of misbehavior, teach how to modify behavior, and address pitfalls that parents may encounter during implementation. This unique component, along with its more developmentally sensitive approach, makes Triple P a promising program for many parents and practitioners.

Clearly, empirically validated parent education programs have been effective in reducing incidences of noncompliance and conduct problems in children, utilizing similar strategies and approaches. Some minor variations have been developed over time which serve to individualize the programs. Regardless of this fact, parent education programs tend to be implemented in much the same way. In addition, these programs evidence limitations which impact their effectiveness. Specifically, traditional parent education programs tend to be intervention-

oriented and focus on overt behavioral problems. Moreover, these programs are often not developmentally sensitive nor are they sensitive to the differential effects of child temperament and children's ability to regulate emotions. These components need to be investigated further in order to determine whether they enhance the effectiveness of current programs.

<center>Overview of Parenting Research</center>

Dimensions of Parenting

Parent education programs have been developed and implemented in order to assist parents in effectively managing their children's behavior, with each targeting wide ranges of ages and levels of misbehavior in children. However, many programs are not informed by current developmental research and often do not vary their application based on such factors as attachment, parenting style, and children's level of socioemotional development. These programs do tend to map onto current developmental research, but are not specifically designed or developed from this body of literature. Instead, as previously noted, they are primarily based on the principles of social learning theory.

Research on parenting has expanded greatly over the past 30 years since Baumrind (1968, 1971) published her seminal article that defined the parenting styles most often examined in research. Baumrind (1968) devised a typology of styles which serves as the cornerstone for the study of parenting. According to Baumrind (1968), warmth and responsiveness, coupled with appropriate levels of control, are aspects of parenting that are most likely to foster competence in children (Belsky, 1984). These characteristics describe what has come to be known as authoritative parenting and have been shown to predict the best social, behavioral, and emotional outcomes for children (Baumrind, 1971; Kaufman, Gesten, Santa Lucia, Salcedo, Rendina-Gobioff, & Gadd, 2000). Specifically, these factors have been found to result in greater social

<center>16</center>

competence and regulatory abilities, fewer behavioral problems, and closer parent-child relationships (Darling & Steinberg, 1993; Zhou, Eisenberg, Losoya, Fabes, Reiser, Guthrie, Murphy, Cumberland, & Shepard, 2002). Moreover, these parenting strategies create an atmosphere in which children feel safe and secure (Thompson, 1999).

While parents may share similar goals, they often differ in the manner in which they rear their children. Parents who communicate clear expectations of appropriate child behavior and consistently enforce their rules and standards of child conduct teach children expectations for acceptable behaviors; such parenting behavior increases the likelihood that children will comply with parental requests (Crockenberg & Litman, 1990). In contrast, parents who inconsistently respond to children's misbehavior fail to clearly communicate their expectations for children's behavior, putting children at increased risk for subsequent behavioral difficulties. Consistent with this idea, harsh and inconsistent parenting has also been found to predict increases in children's resistance and noncompliance (Kuczynski, Kochanska, Radke-Yarrow & Girnius-Brown, 1987; Leadbeater & Bishop, 1994).

While consistent discipline is an essential ingredient in effective parenting, warmth is also important for children's socioemotional development. Parental warmth is defined as parents' general tendency to be supportive and affectionate, to express approval, and to direct positive emotions and behaviors toward their children (Eisenberg, Losoya, Fabes, Guthrie, Reiser, Murphy, Shepard, Poulin & Padgett, 2001b). It is the extent to which parents respond positively to and demonstrate pleasure in being with their children (Mize & Pettit, 1997). A style of parenting that is high in warmth conveys feelings of love and affection and results in greater positive emotion in children (Eisenberg, Gershoff, Fabes, Shepard, Cumberland, Losoya, Guthrie, & Murphy, 2001a). Warm parents are seen as being engaged and committed to their

17

children's well-being (Gottman, Katz & Hooven, 1997), they are enthusiastic in their interactions, and they provide their children with a sense of trust in their relationships, both with their parents and others.

A related dimension of parenting is responsiveness to the child. Responsiveness is defined in terms of how quickly and consistently parents respond to their children's behavior (Ladd & Ladd, 1998). Implicit in this definition are both verbal and nonverbal responses to children's statements, questions, comments, and ideas. Research suggests that parents who demonstrate higher levels of responsiveness have children who are more socially competent (Borkowski, Ramey & Stiles, 2002). Warmth is therefore conceptualized as the affective component and responsiveness as the behavioral component that both serve to illustrate parents' affiliative feelings towards their children.

Conversely, parenting that is characterized by a lack of warmth; harsh, inflexible or inconsistent discipline; and inadequate supervision of and involvement with children predicts greater incidences of behavioral and emotional problems, including substance abuse, antisocial behavior, and juvenile crime (Coie, 1996). Moreover, disciplinary techniques that involve power assertion are ineffective in shaping children's behaviors because they cause emotional overarousal in the child, resulting in an inability to internalize parents' socialization messages and learn prosocial behaviors. With parents' assistance, children must develop the ability to regulate their level of arousal in order to receive the message and understand others' perspectives (Krevans & Gibbs, 1996), in addition to increasing the likelihood of compliance. Thus, the development of social competence and overall child adjustment depends greatly on the ability to regulate emotions.

Parental Socialization of Children's Emotion Regulation

The goal of parenting is to teach children to become competent, caring adults who are able to function well in society (Bradley & Corwyn, 1999). Parents aim to socialize their children to be competent in their interactions with others (Mize & Pettit, 1997). Parents must engage then in practices and behaviors that influence children's learning regarding the experience, expression, and regulation of emotion (Eisenberg et al., 2001b). By modeling and teaching ways in which to manage emotions and their expression, parents shape and influence children's social competence and overall adjustment. Consequently, parental socialization of emotion is important for children's later development.

As children develop, they acquire knowledge about the world and learn to interact with their environment and others from their parents. Indeed, modern social learning theory teaches us that people learn how to behave by watching others. Because children are curious and impressionable, they are particularly sensitive to the effects of modeling. Through teaching and training, parents are the primary models upon which children initially base their behaviors. It is important to note, however, that these effects are bidirectional; not only do parents influence children's behavior, but children influence their parents' behavior as well (Lytton, 1990). In turn, the impact that children exert on parents feeds directly back to influence their own behavior (Belsky, 1984). The child, then, is seen as an active participant in the parenting process, eliciting certain responses that serve to either enhance adaptive, or exacerbate problematic, parenting behaviors (Gallagher, 2002). This notion has been expanded beyond simply learning about observable behaviors. Research has found that children learn about emotions and how to regulate them by observing parents' emotional displays and interactions (Parke, 1994) and tend to adopt parents' style of expressing emotions. Thus, if parents are dysregulated, children will also assume maladaptive ways of coping with emotional arousal, resulting in low social

competence and increased behavioral problems (Eisenberg, Valiente, Morris, Fabes, Cumberland, Reiser, Gershoff, Shepard, & Losoya, 2003).

Parents' reactions to displays of emotions, especially negative emotions, have important implications for children's socioemotional development as well. In a study examining the relation between parents' reactions to children's negative emotions and social competence in a sample of preschoolers and kindergarteners, Fabes and colleagues (2001) found that parents who use harsh coping strategies in response to their children's negative emotions have children who express emotions with more intensity. In turn, their children's inability to modulate their level of reactivity results in decreased social competence with peers (Fabes, Leonard, Kupanoff, & Martin, 2001). Thus, the manner in which parents respond to their children's emotions plays a significant role in the development of children's regulatory abilities.

Not only is it important to consider how parents respond to their children's emotions, it is also necessary to examine how parents' own emotional expressivity affects their children's ability to manage emotions. Denham (1998) asserts that the family is the primary source whereby children learn about emotions and the appropriate expression of them. Therefore, parental expressivity contributes to children's understanding of the emotional reactions of others and helps to clarify their beliefs about how to interact with others in socially appropriate ways (Eisenberg et al., 2001a). Moreover, parents' emotional expressivity likely has implications for children's ability to engage in healthy peer interactions (Eisenberg et al., 2003).

Halberstadt, Crisp, and Eaton (1999) postulated that parents' positive and negative expression of emotion during interactions with their children determines the emotional climate of the household. Based on this criteria, results from several studies suggest that positive emotional expressivity in parents is related to increased social competence and the decreased likelihood of

children developing externalizing problems (Eisenberg et al., 2001a; Eisenberg et al., 2003). Conversely, negative expressivity by parents in response to their children results in higher levels of stress and a decreased ability to regulate emotions (Eisenberg, Guthrie, Fabes, Shepard, Losoya, Murphy, Jones, Poulin & Reiser, 2000; Fabes et al., 2001). Thus, parents who express positive emotions have children who are better regulated emotionally, whereas those who tend to express negative emotions have children who evidence greater levels of emotion dysregulation.

Related to this idea, research has shown that children who have difficulty regulating their emotions are prone to problem behaviors (Newman, Caspi, Moffitt, & Silva, 1997; Rothbart & Bates, 1998). Specifically, emotionally dysregulated children have been found to be more behaviorally anxious and wary, and tend to be rated by parents as having more internalizing problems (Rubin, Coplan, Fox, & Calkins, 1995). Moreover, children who are prone to negative emotionality are more likely to evidence externalizing problems (Eisenberg et al., 2000b). In a related finding, the risk for developing externalizing behavior problems was increased when children's negative emotionality was coupled with maternal hostility (Morris, Silk, Steinberg, Sessa, Avenevoli, & Essex, 2002), again demonstrating that parents play an important role in children's socioemotional development.

Another significant factor in developing social and emotional competence in children involves parents' attitudes and thoughts about emotions. Since children tend to model behavior observed in others, parents' ideas and beliefs about emotions also become increasingly important in determining children's ability to regulate their own emotions. Thus, it is necessary for parents to develop an overall philosophy regarding emotion and its expression. Gottman and colleagues (1996) define an emotion philosophy as "an organized set of feelings and thoughts about one's own emotions and one's children's emotions" (p. 243). Parents who are insightful and able to

evaluate what they think and feel about emotions are more likely to develop these same skills in their children. Research indicates that parents who are warm and demanding, and who aid children in regulating emotions by such behaviors as problem solving, labeling emotions, and using emotions as opportunities for learning, have children who are better regulated (Gottman et al., 1996). Gottman calls these parents "emotion coaches." This finding provides further support for the notion that children who effectively regulate emotions tend to be more socially competent (Fabes & Eisenberg, 1992).

A review of the literature demonstrates that parents who use the expression of emotion as an opportunity to teach children about understanding emotions are aware of their own and their children's emotions, and use this knowledge to help children label their feelings (Gottman et al., 1996). By capitalizing on these teachable moments, parents impact their children's emotional development in important ways. Empirical research supports the idea that parents who serve as emotion coaches guide children through the process of regulating emotions and convey empathy to their children during times of emotional arousal. Moreover, emotion coaches validate their children's emotional expression and help them to develop appropriate problem-solving skills (Gottman et al., 1997).   As a result, these children are better able to regulate their emotions and are more able to focus attention in a goal-directed manner (Gottman et al., 1996).

In summary, it is clear that the parent-child relationship exerts a significant influence on the psychological and emotional well-being of children. Empirical research indicates that authoritative parenting results in a more positive parent-child relationship and better child behavior. These outcomes can be realized when parents effectively socialize their children's ability to regulate emotions. Specifically, parents' reactions to children's emotions, in addition to their own expressivity, assists children in maintaining an optimal level of arousal which in

turn influences their regulatory abilities (Eisenberg et al., 1998). Moreover, parents' willingness to discuss and label emotions also contributes to their success in teaching their children how to modulate emotional affectivity. Thus, the importance of emotions and emotion regulation are apparent in that children who are emotionally regulated demonstrate decreased behavior problems, increased social competence, and have emotionally close relationships with their parents. Indeed, regulation of emotions is an essential component in shaping children's socioemotional development. This evidence provides further support for the notion that parent education programs should be modified to include elements that introduce parents to the concept of emotions and how regulation of their own and their children's emotions affects socialization efforts.

<div align="center">Characteristics of the Child that Interact with Parenting</div>

Child Temperament and Socioemotional Development

Children's influence on parenting results from a multitude of factors, both dispositional and situational. Factors that are believed to be most important involve children's basic temperamental nature and their ability to regulate emotions in response to stimuli (Gallagher, 2002; Kochanska, 1997; Morris et al., 2002; Sheeber & Johnson, 1994). Temperament appears to reveal the rudimentary regulatory processes that are present at birth in all individuals, whereas emotion regulation is conceptualized as a set of behaviors that individuals acquire over time and which serve to modulate affective expression. Each of these will be discussed in turn.

Several theories have been proposed regarding the origins of temperament and numerous studies have been conducted in an attempt to provide support for these theories. Most theorists emphasize individual differences in emotionality as fundamental to defining this construct. Although one specific definition of temperament cannot be found, researchers generally agree

that temperament is defined as constitutionally-based individual differences among infants and young children in emotional, motor, and attentional reactivity and self-regulation (Buss & Plomin, 1975; Putnam, Sanson & Rothbart, 2002; Rothbart & Bates, 1998; Thomas & Chess, 1977; Thompson, 1999). Although temperament is viewed as a relatively stable trait, research on the manifestation of temperament suggests that it evidences only modest stability over time, and its nature and expression are continuously modified by interactions with the environment. Thus, despite its biological basis, temperament is malleable and continues to change and evolve throughout the lifespan as a result of these influences (Carey & McDevitt, 1995).

Temperament has also been conceptualized as "a set of variables, measured by aggregating individual responses across multiple situations" (Rothbart & Ahadi, 1994) that influences the development of values, needs and goals. In developing her theory regarding the origins of temperament, Rothbart (1994) posited three broad factors which are thought to form an integrated system of capacities and limitations over time. The first factor, surgency/extraversion, includes approach, activity level, impulsivity, and high intensity pleasure. The second factor is defined by fear, anger/frustration, sadness, and low soothability and is labeled negative affectivity. The third factor, called effortful control, includes attentional focusing and shifting and inhibitory control (Rothbart & Ahadi, 1994; Rothbart, Ahadi, Hershey & Fisher, 2001). These three factors are believed to reflect the underlying dimensions of temperament.

Differences in temperament influence how stimuli are perceived and interpreted. Consequently, temperament may either predispose individuals for risk or serve as a protective factor for the development of behavioral problems. Investigations into the interactions between person and environment have proposed that the environment is first filtered through the child, so

that children with different characteristics will be differentially affected by the same event. So it can be said that children screen and influence their environments while subsequently being affected by them (Sanson & Rothbart, 1995). As a result, children develop different patterns of responses to environmental stimuli. These behavior patterns have been identified in the literature as "difficult" and "easy" temperaments.

Temperamentally easy children are generally cheerful, able to adapt more readily to changes in their environments, and are not easily distressed by limitations that are placed on them (Rothbart & Bates, 1998). These children tend to be more responsive to parental demands and receive high levels of warm and responsive parenting. Conversely, children with difficult temperaments exhibit higher levels of negative emotionality and withdrawal. They evidence irregular daily routines, are slow to accept new experiences, tend to react negatively and intensely to stimuli, and are unable to regulate their reactions to changes (Sanson and Rothbart, 1995). Moreover, children who are temperamentally difficult tend to elicit less sensitive and responsive parenting (Crockenberg & Leerkes, 2002), and in so doing negatively influence the parent-child relationship (Rubin et al., 1999).

Children's socioemotional development is often thought of in terms of temperamental reactivity, which is modulated by parental socialization efforts. Consistent with this notion, the literature suggests that the manifestation of behavior problems is not solely determined by the temperamental disposition of the child; it is only in conjunction with particular environments that difficulties are experienced. Thomas and Chess (1977) first postulated that the risk for developing problems is influenced by the goodness of fit between child temperament and environmental demands. Thus, in the case of a temperamentally difficult child, if the social and

physical environments can be adjusted to more closely meet the child's needs and characteristics, the risk for developing behavior problems decreases.

Several temperamental mechanisms are in place which serve to help individuals regulate their emotions. Of particular interest in this study is effortful control, which is defined as "the ability to suppress a dominant response to perform a subdominant response" (Kochanska, Murray, & Hardin, 2000). Stated another way, it involves the ability to utilize attentional resources and to inhibit a behavioral or emotional response or perform a different response (Morris et al., 2002). Effortful control begins to develop before the end of the first year of life as initial reactive processes become less influential and children become more capable of controlling their responses to internal and external stimuli (Derryberry & Rothbart, 1997).

This ability to inhibit a response and select a different one has implications for children's socioemotional development. In particular, low effortful control has been linked to aggression and behavioral problems in children (Eisenberg, Fabes, Guthrie, Murphy, Maszk, Holmgrem, & Suh, 1996; Rothbart, Ahadi, & Hershey, 1994). Moreover, Morris et al. (2002) found that children who had low effortful control were particularly vulnerable to the effects of parental hostility and inappropriate levels of control. Low effortful control has also been closely linked to emotion regulation. Eisenberg and Morris (2002) argue that low effortful control is related to the development of problem behavior and social competence, which both reflect an inability to regulate emotions. Children who are low in effortful control tend to be underregulated and high in involuntary or reactive control, and are likely unable to resist the inclination to inhibit their behavior in response to stimuli.

Kochanska et al. (2000) conducted a study in which five capacities of effortful control were investigated: delaying, slowing down motor activity, suppressing or imitating activity to

signal, effortful attention, and lowering voice. Participants were 9-month-old children and their

parents who were followed for two years. Results supported previous research which views

effortful control as a coherent personality construct that develops over time. The authors

examined the antecedents of effortful control and found that mothers who were more responsive,

emotionally available, supportive, accepting, and sensitive towards their children at 22 months

had children who exhibited greater effortful control when assessed at 33 months. Additionally,

mothers who had higher levels of effortful control had children who scored higher in effortful

control at 33 months. These results provide evidence that effortful control is affected by

parenting practices and supports the notion that parent education programs should be modified to

include an emotional component that assists parents in understanding their children's, and their

own, emotional and behavioral regulation.

Another temperamental mechanism that affects children's behavior is the tendency to

react negatively to stimuli. A review of the existing literature provides evidence for the

relationship between high rates of negative affectivity and problem behavior during childhood

(Eisenberg et al., 2000b; Eisenberg et al., 2002; Morris et al., 2002) and antisocial behavior later

in life (Caspi, Moffitt, & Silva, 1995). Children who are susceptible to high levels of negative

affectivity pose a particularly difficult challenge for parents.

Research has demonstrated that parenting is most effective when socialization messages

are delivered at an optimal state of arousal in the child (Kochanska, 1995). Thus, children who

have high levels of negative affectivity are unable to internalize parental messages because their

level of emotional arousal prevents them from processing the information. Moreover, because of

their inability to modulate negative affectivity, children and their parents can become involved in

a coercive cycle in which both members of the dyad engage in negative interactions in an attempt to control the behavior of the other (Patterson, 1982).

Based on these factors, children who fail to develop the ability to regulate emotions are at risk for the development of conduct problems and a more problematic parent-child relationship (Frick & Morris, 2004). It is through understanding these fundamental dispositional variants that we can better determine where socialization efforts should be focused. It is then the responsibility of the parent to assist children in developing flexible, adaptable, and socially appropriate emotion regulation strategies (Eisenberg & Morris, 2002). Development of regulatory abilities does not occur in the same manner or at the same rate for all individuals. Therefore, it is important to consider these individual differences in order to tailor the socialization of effective regulation techniques and maximize internalization of these strategies, resulting in an increased ability to modulate emotional arousal.

This idea takes on greater significance when evaluating the effects of parenting on children's later development. Clearly, developmental trajectories that arise from a particular temperamental profile depend on both the temperamental disposition of the child and the environmental demands that are placed upon him or her (Thompson, 1999). Regrettably, there is a paucity of empirical research investigating the proposed interaction between environment and temperament, although initial support for this idea has been evidenced in the literature (Bates, Pettit, Dodge, & Ridge, 1998) and research in this area is growing.

<center>Temperament as a Moderator</center>

Parenting style and parenting practices have been associated with a myriad of child outcomes. For example, hostile and negative parenting predicts the development of behavior problems in children and results in difficulty regulating emotions (Shaw, Keenan & Vondra,

1994). While parent education programs are effective in reducing children's misbehavior, results vary for certain children. In other words, not all parents who participate in a parent education program are able to successfully produce positive changes in their children's behavior (Kazdin et al., 1987; Kazdin et al., 1992).

One factor that may account for this differential effect is the children's own dispositional or temperamental characteristics. As mentioned previously, parenting becomes more or less challenging depending on the dispositional temperament of the child. Traditional parent education programs tend not to address the impact that temperament has on their effectiveness. By focusing primarily on children's overt behavioral expression, the affective component is often overlooked. Hence, it is more difficult to ascertain the reasons for certain behaviors. Without this knowledge, parents cannot appreciate the complex interaction that determines which behaviors are manifested in their children.

Parent education programs, therefore, need to focus on teaching parents about how temperament and emotion regulation affect parenting. While parents who participate in traditional parent education programs demonstrate greater efficacy in managing their children's behavior, success is most likely achieved with temperamentally easier children. By adding an emotion component to traditional programs, these effects will likely improve for children of all temperamental dispositions. Specifically, parents who participate in a modified program containing an emotion component will likely respond in less punitive ways to children's emotions and related behaviors, resulting in more effective child management.

Nevertheless, some research suggests that parenting programs actually help children with the most vulnerable temperaments. For example, Stoolmiller, Eddy and Reid (2000) developed a program designed to prevent conduct disorder in sample of elementary school students. Blind

observers were used to code playground aggression. Results obtained found that the effectiveness of the intervention was directly related to the initial levels of aggression exhibited by the children. In other words, those children who were most aggressive improved the most and benefited most from the intervention (Stoolmiller et al., 2000). These results provide evidence that *prevention* programs may only help children with less vulnerable temperaments, whereas *intervention* programs are more useful for more vulnerable children. Thus, adding a component which focuses on temperamental characteristics and regulating emotions is likely to enhance successful implementation, resulting in better outcomes for all children.

Belsky (1984) hypothesized that difficult temperaments contributes to the development of parenting by undermining parental functioning. Studies have indeed supported this notion, showing that child temperament predicts which practices parents employ in order to manage their children's behavior (Rubin et al, 1999). Moreover, children with more vulnerable temperaments have parents who use less than optimal parenting practices. Undeniably, the characteristics displayed by these children (e.g., high negative affectivity, low effortful control, low soothability, high distractibility) make them more difficult to care for. This idea is supported in the literature by Morris et al (2002) who found that children with high levels of negative affectivity were more likely to exhibit problem behaviors when exposed to negative parenting. Thus, because of the type of parenting it elicits, child temperament may actually drive the parent-child relationship.

Current empirical research supports the view that children who are temperamentally vulnerable are more susceptible to differences in parenting than children who are more adaptable to changes in their environments (Belsky, 1997). Belsky, Hsieh, and Crnic (1998) conducted a study examining children's differential susceptibility to parenting in a sample of three-year-old

boys. Relying on observational data, results indicated that children high in negative affectivity were more responsive to the care that they experienced in their families, suggesting that temperamental variations do, in fact, moderate the effectiveness of parenting.

In response to these findings, researchers have begun to investigate new programs for teaching parents to successfully manage their children's behavior (Carey & McDevitt, 1998; Turecki & Tonner, 2000). Temperament-focused parent education has been developed to help parents of more temperamentally vulnerable children (Sheeber & McDevitt, 1998). These programs are designed for parents of children ages 2-6 years and include an educational component that introduces parents to the concept of child temperament and how it influences children's behavior. Parents assess their children's temperamental profile and learn ways to enhance and individualize their parenting based on their children's unique temperamental type. Finally, parents receive instruction and support regarding how to implement and tailor the strategies they employ in managing their children's behavior. Greene (2001) advocates what he calls a "user-friendly environment" by which parents recognize the tendency for their children to have greater difficulty regulating their emotions and respond at the appropriate time and in the appropriate manner to their children's distress, which is a departure from the "one-size-fits-all" approach of many behavior modification programs.

This temperament-focused parenting program does not purport to modify children's temperament, but to change parents' behaviors so that they actually complement children's behavioral styles (Sheeber & McDevitt, 1998). Moreover, this program attempts to help parents appreciate and respect individual differences in their children and to reduce negative feelings about themselves and their parenting ability. Parents who participate in a program such as this gain a greater understanding of the characteristics that make their children unique and learn to

respond sensitively and appropriately to those differences. An evaluation of this program provided evidence in support of this notion, as parent participants reported decreased behavior problems and a more positive family environment (Sheeber & Johnson, 1994)

Results of current research are promising in that parenting accounts for more variance in child outcomes when the temperamental disposition of the child is taken into consideration. As a result, it is believed that the effectiveness of parent education programs is contingent upon children's temperament. In the current study, we posit that parents of children who have high effortful control and low negative affectivity will utilize more positive parenting practices and a more authoritative style of parenting than parents of children with more vulnerable temperaments. These parents will also feel a greater sense of efficacy as parents. However, despite evidence of low effortful control and high negative affectivity, we believe that parents who participate in a parent education program that includes instruction about temperament and regulation of emotions will learn to modify their strategies based on the temperamental disposition of their children, resulting in more effective management of their children's behavior. Thus, the focus becomes not changing children's temperament, but changing parenting practices and styles to complement the unique temperamental dispositions of their children, regardless of their children's ability to regulate their emotions. Moreover, by training parents as emotion coaches, we may actually be able to improve children's ability to regulate emotions.

Temperament-Based Parent Education

The *Positive Parenting Project* was developed in response to the limitations noted in traditional parent education programs. The goal was to not only teach parents authoritative parenting practices through a traditional behavior modification program, but also to provide parents with an understanding of child temperament as well as how temperament and the ability

32

to regulate emotions affects children's behavior (see Appendix A). Thus, although the program

was designed in accordance with existing parent education programs, an additional component

was added to address the effects of child temperament and the ability to regulate emotions on

parenting and children's behavior.

The behavioral component of the program was based on the Triple P Positive Parenting

Program (Sanders, 1999), which sets forth a multilevel, prevention-oriented approach for

managing children's behavior. Parents are taught not only to use positive child management

strategies, but also to develop a pattern of interaction with their children that allows for an

emotionally closer, more harmonious parent-child relationship. Research has shown that

spending a few minutes of special time together daily improves children's self-esteem, attention,

and frustration tolerance as well as the parent-child relationship (Hembree-Kigin & McNeil,

1995). This time should not be contingent upon children's positive behavior, but engaged in

consistently in order to interrupt negative behavior and to foster a more positive relationship.

Moreover, it is believed that engaging children in positive interactions leads them to associate

compliance with positive outcomes, which in turn, perpetuates the cycle of positive parenting

and good behavior.

The emotion component of the program was developed to educate parents regarding child

temperament and its influence on behavior, as well as to teach parents to cultivate their

children's ability to regulate emotions by being emotion coaches. Parents learned the importance

of identifying their children's temperamental style in an effort to assist them in tailoring their

parenting to complement their children's unique dispositional tendencies. Research has

consistently demonstrated that children's temperament plays a role in the development of

regulatory abilities in childhood (Derryberry & Rothbart, 1997; Fabes, Eisenberg, Karbon,

Bernzweig, Spencer, & Carlo, 1994; Frick & Morris, 2004). Moreover, children with more

vulnerable temperaments have been found to react more negatively to emotional arousal (Frick

& Morris, 2004) and to elicit more negative parenting (Fabes et al., 2001). Thus, it is especially

important for parent to aid their children in the development of regulatory strategies. Gottman

and colleagues (1996), in a study of 56 parents of 4- to 5-year-old children, demonstrated that

parents' beliefs about and awareness of their own emotions affects children's ability to regulate

their emotions. As a result, the emotion component of the program addressed these core issues.

In keeping with traditional parent education programs, our program first taught parents

basic behavior modification strategies (e.g., time out, ignoring, reinforcement). However, care

was taken to ensure that these techniques were appropriate for the specific developmental ages of

the children since the parenting literature demonstrates that certain techniques are not universally

effective with all age groups (e.g., time out is only recommended for children ages 2-10 years;

Sanders, Cann, & Markie-Dadds, 2003). Behavioral interventions with parents have been

consistently shown to be effective for reducing problem behavior in children (Bor et al., 2002;

Bradley, Jadaa, Brody, Landy, Tallett, Watson, Shea, & Stephens, 2003; Forehand & McMahon,

2003; Webster-Stratton & Hammond, 1997). Thus, our initial focus was to teach parents ways of

managing their children's behavior that are grounded in evidence-based research.

The first session of the *Positive Parenting Project*, the behavioral module, begins with an

explanation of why children misbehave. Parents watch a brief video clip and participate in a

discussion regarding the causes of child behavior. Factors such as children's genetic makeup,

outside influences, and most importantly the family environment, are addressed. Parents are able

to gain awareness of how their behavior and the environment that they structure for their children

influence how children behave. Specifically, parents learn how certain practices in which they

engage (e.g., giving accidental rewards, using punishment ineffectively, and having unrealistic expectations of children's abilities) might serve to initiate and maintain problem behaviors. Parents are taught how to accurately observe and record problem behavior in an effort to break down and analyze the causes and consequences of not only their children's, but also their own, behavior. Once parents are able to recognize the influence they exert on children's behavior, they are able to make the necessary modifications in their own behavior in order to improve their children's behavior.

First, the importance of giving good commands is impressed upon parents, as many incidences of misbehavior may be due to the manner in which the instruction was given. Thus, parents are encouraged to use clear, calm statements that accurately reflect what the child is to do in an effort to ensure greater compliance. However, since it is unlikely that children will comply 100% of the time, parents learn strategies for reinforcing children's behavior. Methods such as time out, planned ignoring, and using descriptive praise are taught, and parents are encouraged to employ these techniques consistently in order to achieve results. Moreover, parents learn how spending a few minutes of quality time daily with their children affects (i.e., improves) the parent-child relationship and children's subsequent behavior. Using behavior charts to designate target behaviors and illustrate progress towards goals is demonstrated and parents receive sample charts to use at home. Importantly, parents are cautioned about the likelihood of escalation in children's problem behavior as a result of their implementation of our program and are encouraged to remain steadfast in their efforts to manage their children's behavior. Finally, parents learn about authoritative parenting. Specifically, parents receive education regarding the qualities and characteristics of an authoritative parent, why being an authoritative parent is important, and the short- and long-term effects of authoritative parenting on children's behavior.

A review of the literature reveals that problem behaviors tend to be reduced when there is a "goodness of fit" between parental demands and expectations and child temperament (Cameron & Rice, 1986; Thomas & Chess, 1977). Oftentimes, parents lack an understanding of normative development, which results in unrealistic expectations of their children. Moreover, many parents attribute their children's misbehavior to willfulness or defiance, which leads to feelings of anger, resentment, and disillusionment by the parents. Consequently, parents lose confidence in their ability to manage their children's behavior and feel ineffective in the parenting role. This cycle continues as parents' feelings of efficacy continue to decrease, resulting in additional stress which further affects their parenting ability.

In our program, parents are educated regarding the link between stress and illness, and are taught strategies for regulating their own emotions in response to both ordinary stressors as well as skills for coping when extraordinary stressors arise. High levels of stress in parents become apparent in their affect and behavior, setting the tone for the entire household. Thus, the emotional climate of the home is an important factor in the development of emotion regulation. Moreover, our program encourages parents to be emotion coaches in order to assist their children in learning to identify and label their emotions, which is essential for regulating them.

Through questionnaires and instruction, *The Positive Parenting Project* assists parents in determining their child's specific temperamental type. Categories are determined based on a continuum level of extroversion and emotionality. Four temperamental types are conceptualized:

Emotional and Shy – high emotionality, low extroversion

Emotional and Social – high emotionality, high extroversion

Easy Going and Shy – low emotionality, low extroversion

Easy Going and Social – high emotionality, high extroversion

Once parents identify their child's type, they receive a written explanation of how best to parent children in each category, as well as potential risks associated with each type. Specifically, parents gain knowledge of child management strategies that are compatible with, and complementary to, their children's individual temperamental characteristics. Parents learn more about individualized parenting of temperamentally diverse children, thus somewhat normalizing their children, and their behaviors, and leading parents to feel less isolated and discouraged about their parenting. In similar studies, providing parents temperamentally-based explanations for their children's behavior and educating them regarding these individualized techniques have resulted in parents reporting decreases in children's problem behaviors and increases in feelings of self-efficacy (Sheeber & Johnson, 1994).

Current Study

The purpose of the current study is to examine whether providing parents with information regarding their children's unique temperaments will result in more sensitive, warm and effective parenting. Parents will learn to gauge the emotional climate of their homes and how that environment affects children's social and emotional development. Additionally, parents will gain knowledge about the most effective strategies for helping children learn to regulate their own emotions and how to be an emotion coach by recognizing, labeling and validating children's emotions. The effectiveness of the program will be evaluated based on children's initial temperament. Implementing a multidimensional parenting program that targets the behavioral, cognitive and emotional aspects of development will ensure that services address the whole person and result in better outcomes for children and their families which can be generalized to multiple settings.

One of the ways in which better outcomes can be obtained is through educating parents regarding the unique characteristics of their children. Children are often described in terms of easy and difficult, but what exactly does this mean? By teaching parents how to more specifically and accurately classify their children's temperamental framework and how they react to life events, they learn which aspects of their children's temperament can either enhance or limit the effectiveness of interventions. Teaching parents to identify their feelings about emotions and how they regulate their own emotions provides them with greater insight into themselves and how they relate to their children as a result. Increasing parental awareness regarding how emotions are expressed in their homes helps set an emotional climate that allows for optimal internalization of parental messages by their children.

By recognizing the role that emotions play in their lives, parents learn to become emotion coaches and are better able to assist children in labeling and making sense of their own emotions. Parents can use these opportunities to validate their children's emotions and teach them how to express their emotions in socially appropriate ways. It is the hope that as a result children will become less reactive and better able to regulate both positive and negative emotions, resulting in better behavioral outcomes.

In the present study, child temperament is expected to moderate parents' effective use of skills and application of information obtained through a parent education program. Specifically, it is believed that educating parents about the influence of their children's temperament on their behavior will allow parents to develop responses to misbehavior and emotional expressivity that are individually tailored to match these temperamental variants. In this way, parents learn to understand and respect individual behavioral differences in children and to modify their

parenting strategies accordingly. Thus, this study examines whether or not the effects of the

program will differ for children with different temperaments.

Hypotheses of the Present Investigation

The current study is designed to address the effectiveness of a program aimed at educating parents about child temperament and emotions. Parents learned traditional behavioral modification techniques in the first session. An emotion component involving education about temperament and the ability to regulate emotions, as well as their effects on behavior, was added in the second week (see Appendix A). Finally, a summary and wrap-up session was held to assist parents in integrating the information presented and developing a parenting plan. Data were collected at all three time points. Analyses focused on the effectiveness of this program and on whether or not children's temperament affected parents' ability to successfully implement strategies learned during their participation the program. The following hypotheses were therefore proposed:

1. Positive parenting (i.e., high levels of warmth and structure, low levels of hostility, as well as positive reactions to children's negative emotions) will be associated with higher levels of effortful control and lower levels of negative affectivity and problem behavior (i.e., internalizing and externalizing), concurrently and over time.

2. Parents who participate in the *Positive Parenting Project* will more effectively manage their children's behavior after they complete the program. Specifically, these parents will:

   a.   adopt practices that allow them to respond more positively and appropriately to their children's emotions.

   b.   develop a more positive style of interacting with their children (i.e., greater warmth, decreased hostility, more consistent responding, better organization in the home).

c. feel more effective in their role as a parent and in their ability to manage their children's behavior.

3. Children whose parents participate in the *Positive Parenting Project* will:

   a. demonstrate higher levels of effortful control and lower levels of negative affectivity.

   b. evidence decreased levels of problem behavior (both internalizing and externalizing).

4. Increases in positive parenting (parents' practices, styles, and feelings of efficacy), as a result of program participation, will predict increases in children's levels of effortful control and decreases in children's negative affectivity. Conversely, decreases in negative parenting will predict increases in children's level of effortful control and decreases in their level of negative affectivity.

5. The effectiveness of the program will be more pronounced among children who are initially rated by parents as having low levels of effortful control and high levels of negative affectivity.

6. The effect of parenting on children's problem behavior will be moderated by children's initial levels of effortful control and negative affectivity. Specifically,

   a. increases in positive parenting (high warmth and structure, low hostility, positive reactions to children's negative emotions) will have a stronger impact on the reduction of behavior problems among children with more vulnerable temperaments.

   b. decreases in negative parenting (high hostility, low warmth and structure, negative reactions to children's negative emotions) will have a stronger impact on the reduction of problem behavior among children with more vulnerable temperaments.

<center>Method</center>

Design

Data were collected as part of the *Positive Parenting Project* (see Appendix A). The overall program was designed to teach strategies for increasing child management and to support families in their efforts to manage their children's behavior and emotions. Parents were taught empirically validated strategies for effective child management, techniques based on social learning principles (e.g., Patterson, 1982; Sanders, 1999; Sanders et al., 2000). In addition, parents were taught strategies for managing their own and their children's emotions (see Appendix A).

Participants

Participants included parents of 25 children (13 males, 12 females) ranging in age from 4 to 16 years (mean age = 11.76 years). Parents of 22 of the children were recruited from a local charter middle school affiliated with the YMCA. The remaining three parents were recruited through an area Head Start center. Twenty-three mothers and two fathers participated (mean age = 49.4, range 23-62). The ethnic background of participants was primarily African-American (22 participants). Two Euro-Americans and one Hispanic parent also participated in the program. Most families were from lower to middle socioeconomic backgrounds, with a mean annual income of $10,000-20,000. Most parents (52%) completed high school and had taken some college courses. Effort was made to minimize sample attrition by having parents provide extensive contact information in order to ensure our ability to communicate with them regarding their attendance.

Obvious benefits to parents included receiving valuable information regarding how best to manage their children's behavior. Parents also were given instruction regarding how the

emotional climate of the home and their own expression of emotion affect the manner in which their children display and manage their emotions, both positively and negatively. In addition, homework assistance, tutoring and babysitting services were offered for children while parents attended the sessions.

Procedure

Informed consent was obtained from all participants prior to the start of the program. Data were collected from all participants at three time points (Table 1). Parents completed a set of questionnaires at the beginning of the first session, at the beginning of the second session, and at the end of the third session. Measures administered assessed factors such as child temperament and behavior, parenting styles and practices and parents' feelings of efficacy. At the end of the third session, parents were asked to give feedback regarding their overall assessment of and satisfaction with the program. Parents were given approximately 45 minutes to complete the questionnaires at each time point. Each session lasted approximately three hours.

Table 1. Schedule of Data Collection

	Time 1	Time 2	Time 3
Parent Group	Effective Child Mgmt Session	Emotion Session	Summary and Wrap Up Session

Parent education sessions were conducted at the James M. Singleton Charter Middle School and the Causeway Head Start Center in New Orleans, Louisiana. The Parent Education Center at the University of New Orleans oversaw facilitation of the sessions. Participants at the Head Start Center participated in one group per week during the school day for three weeks. The middle school parents had the option of attending one session per week on one of two nights; 12 parents attended one night, 10 parents attended the other. Each session lasted approximately 3

hours. Sessions were facilitated by a female African-American doctoral student in developmental psychology. At each session, parents learned new strategies for effectively managing their children's behavior and emotions. Information was presented through viewing videotapes demonstrating parenting techniques and didactic instruction. Participants were provided written materials on program content as well as behavioral tracking forms and reward charts. Homework was also assigned encouraging parents to practice the strategies learned at home. Parents who completed all three sessions were paid $150.00 for their participation.

Measures

At Time 1, parents completed a basic demographic questionnaire to gather general information (i.e., parent education and income, marital status, child age and birth date, etc.) in addition to the contact information. Parents completed measures assessing children's emotion regulation and emotionality (temperament) and their problem behaviors. In addition, parenting practices, parents' feelings of efficacy and their responses to children's negative emotions were assessed at all time points (see Table 2). All measures were administered verbally to the participants.

Table 2. Key Constructs and Measures

I. **Children's Emotion Regulation/Temperament**   1. Child Behavior Questionnaire (CBQ) – effortful control and negative affectivity scales

II. **Parenting Behaviors and Style**
    1. Coping with Children's Negative Emotions (CCNES) – parenting practices
    2. Parent-Child Relations Measure – parenting style
    3. Maternal Self-Efficacy Scale – feelings of efficacy

III. **Behavior Problems (parent report)**
    1. Lochman's Child Behavior Checklist – externalizing behavior
    2. Kendall's Child Behavior Checklist – internalizing behavior

Children's Emotion Regulation/Temperament. Parents completed items from the shortened emotionality and regulation subscales (anger/frustration, sadness, attention focusing, inhibitory control) of the Child Behavior Questionnaire (CBQ; Rothbart et al., 2001), a widely used measure of child temperament. This 39-item questionnaire asks respondents rate how true an item is for their child over the past 6 months on a 7-point scale (1 = extremely untrue to 7 = extremely true). Sample items include "Cries sadly when a favorite toy gets lost or broken," and "Is good at following instructions." Two of the scales (i.e., attention focusing, inhibitory control) were combined as an indicator of effortful control, which refers to a child's ability to utilize attentional resources and to inhibit behavioral responses in order to regulate emotions and related behaviors (see Eisenberg, Morris, & Spinrad, 2002; Morris et al., 2002; Rothbart, Ahadi, & Hershey, 1994). In addition, the remaining scales (i.e., anger/frustration and sadness) were combined as an indicator of negative affectivity, which refers to the intensity with which negative emotions are expressed. Cronbach's alpha coefficients indicated adequate internal consistency across all subscales at all time points, ranging from .72 to .87 (see Table 3).

Parenting Behaviors and Parenting Style. Parents' responses to negative child emotions such as sadness and anger were assessed using the Coping with Children's Negative Emotions Scale (CCNES; Fabes, Poulin, Eisenberg, & Madden-Derdich, 2002). This measure describes 12 situations in which a child expresses a negative emotion. Parents are asked to choose how they would respond and to rate the likelihood of that response on a scale of 1 = very unlikely to 7 = very likely. Sample items include "If my child falls off his/her bike and breaks it, and then gets upset and cries, I would tell my child that s/he is overreacting" and "If my child loses some

45

prized possession and reacts with tears, I would tell him/her it's ok to cry when you feel unhappy." Each question has six types of reactions (i.e., distress reactions, punitive reactions, minimization reactions, expressive encouragement, emotion-focused reactions, and problem-focused reactions). The six types of reactions can be used as separate subscales or can be combined to form positive and negative reaction subscales. As in past studies (Fabes, Eisenberg, & Bernzweig, 1990), three of the scales (i.e., expressive encouragement, emotion-focused reactions, problem-focused reactions) were combined as an indicator of positive practices, which refers to parents' ability to react in positive ways to their children's emotions. The other three scales (i.e., distress reaction, punitive reaction, minimization reaction) were combined as an indicator of negative practices, which refers to parents' tendency to respond in negative ways to their children's emotions. The CCNES has been used in many studies and is a reliable measure, alphas ranged from .91 to .93 in the current study (see Table 3).

In order to obtain a measure of overall parenting, parents completed the Parent-Child Relations Measure, an 18-item self-report questionnaire that assesses four dimensions of the parent-child relationship: *structure* – routines and organization in the home; *responsiveness* – acknowledgement of children's needs and sensitivity; *positive affect* – physical warmth and affection; and *hostility* – negative affect and hostile interactions with the child (Sessa, Avenevoli, Steinberg, & Morris, 2001). Two of the scales (i.e., positive affect and responsiveness) were combined as an indicator of parental warmth. Items are rated on a 4-point Likert-type scale, ranging from 1 = Strongly Agree to 4 = Strongly Disagree. Sample items include "There is a fixed routine for my child at bedtime that never changes" (structure), "I praise my child when s/he does something well" (warmth), and "I yell at my child at least once a day" (hostility). The questionnaire was developed by Sessa et al. (2001) based on an extensive review of the literature

on parent-child relationships and can be used with children in early and middle childhood. The four scales have shown good internal reliability and empirical distinction in factor analyses and have demonstrated convergent and discriminant validity (Sessa et al., 2001). In this study, alphas ranged from .53 to .84 (see Table 3).

 Parental Efficacy. Parents' feelings of self-efficacy were assessed using a measure adapted from the <u>Maternal Self-Efficacy Scale</u> (Teti & Gelfand, 1991). This 10-item self-report measure asks parents to rate how good they feel they are in handling different situations that arise as a normal part of parenting. Items are rated on a 4-point Likert-type scale, where 1 = not good at all and 4 = very good. Sample items include "How good are you at making your child understand what you want him/her to do?" and "How good are you at knowing what activities your child will enjoy?" The questionnaire evidences good reliability, with alphas ranging from .79 to .82 in the current study (see Table 3).

 Behavior Problems. Internalizing behavior was assessed via parent report using a 16-item scale derived from items in the <u>Child Behavior Checklist</u> (CBCL; Kendall, Henin, MacDonald, & Treadwell, 1998). Reporters rate how often children exhibit certain symptoms (e.g., worrying) on a scale from 0 to 2. Sample items include "Clings to adults or too dependent," "Nervous, high-strung, tense," and "Shy or timid." Unpublished data from Kendall et al. (1998) indicate this scale has good inter-item correlations (r = .42) and good internal consistency for anxious and non-anxious children (alphas > .76). In this study, alphas ranged from .85 to .89 (see Table 3).

 Externalizing behavior was measured using parent report on the <u>Child Behavior Checklist</u> (CBC; Lochman & Conduct Problems Prevention Research Group, 1995). Thirty-five items were rated on a scale of 1 "Never" to 4 "Often". The measure assesses frequency of children's

covert (e.g., lying, stealing) and overt (e.g., fighting) problem behavior and authority conflicts (e.g., stubbornness; Loeber, Wung, Keenan, Giroux, Stouthamer-Loeber, van Kammen, & Maughan, 1993). Sample items include "aggressive to adults," "looks sad," "temper tantrums," and "blames others for misbehavior." Good internal consistency of the measure has been demonstrated in several studies (Lochman et al., 1995; Eisenberg et al., 1997), with alphas for this study ranging from .92 to .96, as shown in Table 3.

Satisfaction with Program. Satisfaction with the program was measured using participants' report on a consumer satisfaction measure. Eight items were rated on a 4-point scale, with higher ratings indicating more satisfaction with the quality of the program. Sample items include "Has the program helped you to deal more effectively with your child?" and "To what extent has the program met your needs?" Four open-ended questions were also included to obtain parents' feedback regarding strengths, weaknesses, and suggested areas of improvement in the program. Cronbach's alpha coefficient indicated good internal consistency, with an alpha of .86 (see Table 3).

Table 3. Means, Standard Deviations, Ranges, and Alphas for all Measures

	Mean	**Standard Deviation**	**Range**	**Alpha**
Effortful Control – T1	4.30	.98	1-6	.72
Effortful Control – T2	4.65	1.13	2-7	.83
Effortful Control – T3	4.58	.89	3-7	.77
Negative Affectivity – T1	4.29	.95	2-6	.78
Negative Affectivity – T2	4.08	1.16	1-6	.87
Negative Affectivity – T3	3.94	.92	1-6	.84
Positive Practices – T1	5.46	.88	4-7	.93
Positive Practices – T2	5.65	.77	4-7	.91
Positive Practices – T3	5.81	.73	4-7	.93
Negative Practices – T1	2.96	.98	1-5	.91
Negative Practices – T2	2.82	1.02	2-6	.92
Negative Practices – T3	2.86	.94	2-5	.92
Structure – T1	2.30	.62	1-4	.53
Structure – T2	2.50	.71	2-4	.67
Structure – T3	2.50	.74	2-4	.78
Hostility – T1	2.14	.89	1-4	.84
Hostility – T2	2.24	.86	1-4	.81
Hostility – T3	2.22	.85	1-4	.80
Warmth – T1	3.45	.49	2-4	.65
Warmth – T2	3.52	.52	2-4	.79
Warmth – T3	3.55	.48	2-4	.80
Efficacy – T1	3.39	.49	2-4	.82
Efficacy – T2	3.28	.43	2-4	.82
Efficacy – T3	3.33	.35	2-4	.79
Internalizing – T1	1.62	.39	1-3	.85
Internalizing – T2	1.54	.39	1-3	.85
Internalizing – T3	1.59	.42	1-3	.89
Externalizing – T1	2.43	.47	1-3	.92
Externalizing – T2	2.37	.55	1-4	.94
Externalizing – T3	2.36	.60	1-3	.96

*n = 24

Results

Parents were asked to give feedback regarding their assessment of the *Positive Parenting Project*. Nineteen of 25 (76%) participants completed the survey indicating that in general they were very satisfied with the program (60%) and would definitely recommend it to others (64%). Sixteen percent of respondents were mostly satisfied and 12% would generally recommend the program to others. Moreover, 36% of parents indicated that almost all of the program met their needs. Seventy-two percent of parents rated the overall quality of the program favorably.

When asked to evaluate the helpfulness of each module (i.e., behavioral and emotion), parents rated the behavioral module as being extremely helpful (36%). However, most parents felt the emotion module as being only very helpful (40%), with only 24% assigning a rating of extremely helpful. Twenty-eight percent of parents reported implementing almost all of the program, with 24% reporting implementing most of the program. Approximately one-third of participants (36%) reported that participating in the program helped them a great deal and 28% reported being helped somewhat. Overall, the program was favorably received by the participants. Moreover, participants reported that the techniques learned were helpful to them in managing their children's behavior and emotions.

Overview of Analyses

Analyses proceeded in a series of stages. Missing data were addressed by use of pairwise deletion. First, in order to ensure sufficient variability, means and standard deviations were computed for effortful control, negative affectivity, positive and negative parenting practices, structure, parental hostility, parental warmth, parental self-efficacy, and internalizing and externalizing behaviors. Correlational analyses were computed to examine the relationships among all study constructs, as proposed in hypothesis 1.

The second hypothesis states that parents who participate in the *Positive Parenting Project* will more effectively manage their children's behavior, as evidenced by the adoption of more positive practices and styles as well as greater feelings of efficacy. Paired samples t-tests were computed to determine mean differences over time as well as several repeated measures analyses of variance (ANOVAs), first comparing across all time points (i.e., time 1 vs. time 2 vs. time 3) and then separately at each time point (i.e., time 1 vs. time 2, time 2 vs. time 3).

The third hypothesis posits that children whose parents participate in the *Positive Parenting Project* will evidence higher levels of effortful control and lower levels of negative affectivity. This hypothesis further suggests that children whose parents participate in the *Positive Parenting Project* will evidence decreased levels of both internalizing and externalizing behaviors over time. Again, paired samples t-tests were computed to determine mean differences over time as well as several repeated measures analyses of variance (ANOVAs), comparing across all time points (i.e., time 1 vs. time 2 vs. time 3) and then separately at each time point (i.e., time 1 vs. time 2, time 2 vs. time 3). A Reliable Change Index (Jacobson & Truax, 1991) was also computed for each construct in order to measure clinically significant change in both the parenting and child variables, as assessed by hypothesis 2 and hypothesis 3.

In order to test the fourth hypothesis (i.e., parenting will predict changes in children's level of effortful control and negative affectivity), change scores were computed of the mean differences. These scores were then correlated to determine associations that existed among the mean differences of the constructs. In addition, hierarchical linear regressions were computed to evaluate the effects of each parenting variable on children's level of effortful control and negative affectivity.

Hierarchical multiple regression equations were also computed to test hypothesis 5, which states that program effectiveness will be more pronounced among children rated by their parents as having more vulnerable temperaments. For example, to determine whether negative affectivity at time 1 affected parent's level of hostility, negative affectivity at time 1 was entered into the equation in the first step. The computed change score from time 1 to time 3 was entered as the dependent variable. Significant increases in the amount of explained variance (i.e., R^2) were expected.

Because the focus of the study was to evaluate the moderating role of temperament in the relationship between parenting practices and children's subsequent problem behavior, multiple regressions were computed to test hypothesis 6. Significant increases in the amount of explained variance (i.e., R^2) were expected. All statistical analyses involving moderators followed Baron and Kenny's (1986) procedure for testing moderators. In addition, significant interactions were interpreted and graphed according to the procedures outlined by Aiken and West (1991) and Holmbeck (2002).

To test children's initial level of effortful control as a moderator between parenting practices and child outcomes, multiple regression analyses were computed for each outcome (i.e., internalizing and externalizing behaviors) using change scores from time 1 to time 3 as the dependent variable. Earlier levels of problem behavior were entered into the equation first. The change score for the specific parenting variable was entered next, followed by the moderator (i.e., temperament) in the third step. Next, an interaction term (the centered independent variable X moderator) was entered. The same procedure was used to test the moderational effects of both effortful control and negative affectivity. All results will be described as they relate to these specific hypotheses.

Correlational Analyses

Pearson correlation coefficients were calculated to evaluate relations between all study

constructs. Overall, study variables were correlated in expected directions at each time point and

across time. Taken together, the results of these correlations, which are presented in Table 4,

provide support for hypothesis 1.

Upon examination of the relationship between parenting and children's level of effortful

control and negative affectivity, several significant correlations were noted. First, parental

hostility was consistently positively correlated with children's level of negative affectivity across

time. Specifically, a significant correlation emerged at time 2 ($r = .39$, $p < .05$), with trends

noted at time 1 and time 3 ($r = .36$ and $.35$, $p < .10$, respectively). Moreover, analyses examining

the relationship between parental hostility and negative affectivity from time 1 to time 3 revealed

a significant positive correlation ($r = .50$, $p < .05$). Negative parenting practices were

significantly positively related to children's level of negative affectivity at time 1 ($r = .42$, $p <$

$.05$), but not at time 2 or time 3. However, negative parenting *was* significantly negatively

related to children's levels of effortful control when assessed at time 3 ($r = -.40$, $p < .05$),

although a significant relationship was not observed at either time 1 or time 2. Conversely,

positive parenting was significantly positively related to children's level of effortful control at

time 3 ($r = .55$, $p < .01$); a trend was also noted from time 1 to time 3 ($r = .34$, $p < .10$). Parental

warmth was also significantly positively related to effortful control at time 3 ($r = .48$, $p < .05$), as

was parental efficacy ($r = .45$, $p < .05$).

A consistently significant result was found in examining the relationship between

parental self-efficacy and effortful control, with strong positive and significant correlations

emerging at time 1 and time 2 ($r = .41$ and $.44$, $p < .05$, respectively). Moreover, a significant

53

correlation was demonstrated for this relationship from time 1 to time 3 overall ($\underline{r}$ = .54, $\underline{p}$ < .01), with a trend towards significance observed at time 3 ($\underline{r}$ = .37, $\underline{p}$ < .10). Interestingly, another notable trend was found for the relationship between parental efficacy and children's level of negative affectivity at time 1 ($\underline{r}$ = -.36, $\underline{p}$ < .10).

Table 4.
Correlations at Time 1 (below diagonal) and Time 2 (above diagonal)

	1	2	3	4	5	6	7	8	9	10
1. Effortful Control	--	-.54**	.20	-.00	.08	-.37†	.12	.44*	-.01	-.32**
2. Negative Affectivity	-.46*	--	.06	.10	.18	.39*	.04	-.24	.36†	.62***
3. Positive Practices	.22	.05	--	-.38†	.25	-.48*	.50**	.24	.09	-.17
4. Negative Practices	-.29	.42*	-.33	--	.04	.61***	.51**	-.05	-.36†	.29
5. Structure	.15	.01	.26	-.03	--	-.28	.07	.26	.03	.08
6. Hostility	-.14	.36†	-.29	.70***	-.27	--	-.42*	-.31	.37†	.49**
7. Warmth	.08	.04	.44*	-.57***	.03	-.52**	--	.21	-.21	-.37†
8. Efficacy	.41*	-.36†	.42*	-.32	.37†	-.61***	.46*	--	-.18	-.25
9. Internalizing	-.05	.38†	-.04	.24	.07	.34	-.18	-.38†	--	.56*
10. Externalizing	-.23	.66***	-.05	.23	-.15	.48*	-.18	-.57**	.31	--

†p < .10, *p < .05, **p < .01, ***p < .001

Table 4. (continued)
Correlations at Time 3 (below diagonal) and from Time 1 to Time 3 (above diagonal)

	1	2	3	4	5	6	7	8	9	10
1. Effortful Control	--	-.30	.34†	-.17	.01	-.32	.13	.54**	-.13	.24
2. Negative Affectivity	-.34†	--	-.18	.29	.09	.50*	-.02	-.33	.35†	.56**
3. Positive Practices	.55**	-.07	--	-.25	.12	-.08	.38†	.18	.03	-.07
4. Negative Practices	-.40*	.11	-.46*	--	.18	.59**	-.43*	-.30	.37†	.32
5. Structure	-.08	-.14	-.05	.17	--	-.20	-.14	.39†	.13	.02
6. Hostility	-.37†	.35†	-.34†	.55**	-.04	--	-.21	-.45*	.39†	.41*
7. Warmth	.48*	.04	.56**	-.56**	-.06	-.11	--	.05	-.16	-.29
8. Efficacy	.37†	-.10	.22	-.17	.26	-.44*	.06	--	-.14	-.36†
9. Internalizing	-.10	.22	-.14	.35†	.03	.51**	-.08	-.28	--	.33
10. Externalizing	-.37†	.45*	-.26	.24	.03	.27	-.30	-.24	.60**	--

†p < .10, *p < .05, **p < .01, ***p < .001

With regard to the relationship between parenting and children's behavior, similar findings emerged. Parental hostility was significantly positively correlated with children's externalizing behavior at time 1 and time 2 ($r = .48$, $p < .05$; $r = .49$, $p < .001$, respectively) and across time points (i.e., time 1 to time 3; $r = .41$, $p < .05$). This relationship did not reach significance at time 3; however, a significant positive correlation emerged with regard to internalizing behavior for this time point ($r = .51$, $p < .01$) and trends were noted at time 2 ($r = .37$, $p < .10$) and across time ($r = .39$, $p = .05$). A similarly interesting result was when examining the relationship between parental efficacy and children's behavior in that negative relationships were found for both externalizing and internalizing behavior at time 1 ($r = -.57$, $p < .01$ and $r = -.38$, $p < .10$, respectively), but not at time 2 or time 3. Analyses of this relationship across time revealed a trend toward significance ($r = -.36$, $p < .10$). Finally, a trend was noted when observing the relationship between negative parenting and children's internalizing behavior ($r = .37$, $p < .10$).

Increases in Positive Parenting

Hypothesis 2 posited that parents who participated in the program would better manage their children's behavior. A paired samples t-test was conducted to evaluate this idea. Mean differences between participants' scores were computed at each time point (i.e., time 1 compared to time 2, time 2 compared to time 3, and time 1 compared to time 3; see Table 5) by subtracting means at earlier time points from later time points. Additionally, repeated measures ANOVAs were computed to assess qualitative changes in parenting over time.

A comparison of mean differences revealed a significant change in parents' positive reactions to emotions from time 1 to time 3 ($t = 2.10$, $p < .05$), with a trend noted from time 2 to time 3 ($t = 1.80$, $p < .10$), indicating that parents adopted more positive child management

practices as a result of their participation in the program. Surprisingly, parents' reported self-efficacy decreased significantly from time 1 to time 2 (t = -2.09, p < .05), suggesting that parents felt less effective after learning behavioral strategies but not overall or following the emotion component of the program. Trends were noted when comparing the means for parents' use of structure, both from time 1 to time 2 and time 1 to time 3 (t = 1.97 and 1.96, respectively, p < .10), which suggests that parents were better able to structure and organize their children's environment after learning the behavioral techniques (Table 5).

Table 5. Paired Samples T-Tests

	Mean Difference	t
Effortful Control Time 1-Effortful Control Time 2	.35	2.14*
Effortful Control Time 2-Effortful Control Time 3	-.07	- .43
Effortful Control Time 1-Effortful Control Time 3	.28	1.89†
Negative Affectivity Time 1-Negative Affectivity Time 2	-.20	-1.67
Negative Affectivity Time 2-Negative Affectivity Time 3	-.14	-1.04
Negative Affectivity Time 1-Negative Affectivity Time 3	-.35	-3.22**
Positive Practices Time 1 – Positive Practices Time 2	.16	1.33
Positive Practices Time 2 – Positive Practices Time 3	.16	1.80†
Positive Practices Time 1 – Positive Practices Time 3	.34	2.10*
Negative Practices Time 1 – Negative Practices Time 2	-.11	-1.20
Negative Practices Time 2 – Negative Practices Time 3	.04	.40
Negative Practices Time 1 – Negative Practices Time 3	-.06	-.56
Structure Time 1 – Structure Time 2	.20	1.97†
Structure Time 2 – Structure Time 3	.00	.00
Structure Time 1 – Structure Time 3	.20	1.96†
Hostility Time 1 – Hostility Time 2	.09	.99
Hostility Time 2 – Hostility Time 3	-.02	-.15
Hostility Time 1 – Hostility Time 3	.07	.50
Warmth Time 1 – Warmth Time 2	.07	.89
Warmth Time 2 – Warmth Time 3	.03	.27
Warmth Time 1 – Warmth Time 3	.09	.93
Efficacy Time 1 – Efficacy Time 2	-.11	-2.09*
Efficacy Time 2 – Efficacy Time 3	.06	1.13
Efficacy Time 1 – Efficacy Time 3	-.06	-.86
Internalizing Time 1 – Internalizing Time 2	-.08	-1.61
Internalizing Time 2 – Internalizing Time 3	.05	.76
Internalizing Time 1 – Internalizing Time 3	-.03	-.49
Externalizing Time 1 – Externalizing Time 2	-.05	-1.14
Externalizing Time 2 – Externalizing Time 3	-.01	-.15
Externalizing Time 1 – Externalizing Time 3	-.06	-.82

†p < .10, *p < .05, **p < .01, ***p < .001

Results of the repeated measures ANOVAs are consistent with those found using the paired samples t-test in that positive practices increased over time (i.e., time 1 to time 3; $F = 3.54$, $\underline{p} < .05$); a significant linear effect was also observed ($F = 4.40$, $\underline{p} < .05$). A trend emerged when examining parents' use of structure across all time points ($F = 2.94$, $\underline{p} < .10$), however no other significant results were found. These findings provide partial support for the hypothesis that parents would adopt more positive practices and styles of interacting with their children and would feel more effective as a result of their participation in the parenting program (Table 6).

Table 6. Repeated Measures ANOVA – Parenting Variables

	Mean Difference	Test of Within Subjects Effects		Test of Within Subjects Contrasts	
		Mean Square	F	Mean Square	F
Positive Practices Time 1 – Time 3	.34*	1.01	3.54*	1.42	4.41*
Negative Practices Time 1 – Time 3	-.06	.07	.57	.04	.32
Structure Time 1 – Time 3	.20†	.33	2.94†	.50	3.85†
Hostility Time 1 – Time 3	.07	.06	.30	.07	.25
Warmth Time 1 – Time 3	.09	.06	.56	.11	.87
Efficacy Time 1 – Time 3	-.06	.08	1.96	.04	.73

†p < .10, *p < .05, **p < .01, ***p < .001

Changes in Children's Temperament and Behavior

The third hypothesis predicted that children would evidence greater ability to regulate their emotions and decreased levels of both internalizing and externalizing behaviors following their parents' participation in the project. Significant mean differences were demonstrated for effortful control from time 1 to time 2 ($t = 2.14$, $p < .05$), with a trend emerging from time 1 to time 3 ($t = 1.89$, $p < .10$). Additionally, children's negative affectivity decreased from time 1 to time 3 ($t = -3.22$, $p < .01$). Taken together, these results indicate that children were better able to regulate their emotions as a result of their parents' participation in a parent education program, thus providing support for the this hypothesis (Table 5).

While mean differences were found for children's level of effortful control and negative affectivity, these differences were not apparent when assessing decreases in internalizing and externalizing problems, suggesting that parents' participation in the program did not lead to changes in their children's behavior problems specifically.

Results of repeated measures ANOVAs were once more consistent with those obtained based on mean differences, with significant results evidenced in terms of children's level of negative affectivity from time 1 to time 3 ($F = 4.02$, $p < .05$), with a significant linear effect observed ($F = 10.37$, $p < .01$; see Table 7). Comparable results were not obtained when assessing children's level of effortful control, although results approached significance when evaluated across all time points ($F = 2.67$, $p < .10$), as was evidenced by the mean differences. Significant results were again not observed for children's problem behaviors, thus providing only partial support for hypothesis 3.

Table 7. Repeated Measures ANOVA – Temperament and Behavior Variables

	Mean	Test of Within Subjects Effects		Test of Within Subjects Contrasts	
		Mean Square	F	Mean Square	F
Effortful Control Time 1 – Time 3	.28†	.88	2.67†	.97	3.55†
Negative Affectivity Time 1 – Time 3	-.35**	.76	4.02*	1.50	10.37*
Internalizing Time 1 – Time 3	-.03	.04	.94	.01	.24
Externalizing Time 1 – Time 3	-.06	.03	.56	.05	.67

†p < .10, *p < .05, **p < .01, ***p < .001

Table 8. Reliable Change Analyses – Time 1 to Time 3

	% No Change	% Change Right Direction	% Change Wrong Direction	% Reliable Change*
Effortful Control	0	64	36	16
Negative Affectivity	4	72	24	8
Positive Practices	5	64	31	17
Negative Practices	4	42	54	8
Structure	38	50	12	13
Warmth	24	44	32	0
Hostility	16	24	60	3
Efficacy	0	42	58	0
Internalizing	8	56	36	8
Externalizing	4	56	42	30

n = 25

*Refers to overall change in the expected direction.

Effect of Parenting on Children's Emotion Regulation

The fourth hypothesis stated that parenting styles and practices, as well as feelings of efficacy in the parenting roles, would predict higher levels of effortful control and lower levels of negative affectivity in children. Hierarchical multiple regressions were computed to determine whether changes in parenting predicted changes in children's temperament. Change scores were first computed and correlational analyses were run to determine associations among the variables, as illustrated in Table 9. To evaluate changes in children's effortful control and negative affectivity from time 1 to time 3, the temperament change score from time 1 to time 2 was entered in the first step. In the second step, the specific parenting change score was entered. The change in R^2 was then evaluated. Significant findings are reported below.

Table 9. Correlations between Change Scores

Parenting Practices – Change Scores	Temperament					
	Δ Effortful Control			Δ Negative Affectivity		
	1-2	2-3	1-3	1-2	2-3	1-3
Positive Practices – Time 1-Time 2	-.01	.36	.39†	.06	-.10	-.06
Positive Practices – Time 2-Time 3	-.30	.26	-.04	.08	.22	.37†
Positive Practices – Time 1-Time 3	-.18	.42*	.28	.08	.03	.13
Negative Practices – Time 1-Time 2	.08	-.12	-.04	.27	-.11	.18
Negative Practices – Time 2-Time 3	.00	-.13	-.15	.03	-.05	-.03
Negative Practices – Time 1-Time 3	.07	-.24	-.19	.26	-.16	.10
Structure – Time 1-Time 2	-.25	.32	.10	.04	-.32	-.36†
Structure – Time 2-Time 3	.24	-.38†	-.17	-.09	-.04	-.16
Structure – Time 1-Time 3	-.05	.02	-.04	-.03	-.36†	-.49*
Hostility – Time 1-Time 2	.02	-.15	-.16	-.01	.05	.05
Hostility – Time 2-Time 3	.20	.01	.24	-.21	.14	-.06
Hostility – Time 1-Time 3	.20	-.09	.12	-.20	.16	-.02
Warmth – Time 1-Time 2	.17	-.15	.02	-.19	-.06	-.30
Warmth – Time 2-Time 3	.08	.12	.23	-.05	.24	.25
Warmth – Time 1-Time 3	.21	.00	.24	-.20	.18	.01
Efficacy – Time 1-Time 2	-.19	-.10	-.32	.03	-.11	-.10
Efficacy – Time 2-Time 3	-.13	.09	-.04	.41*	-.29	.10
Efficacy – Time 1-Time 3	-.25	-.02	-.30	.33	-.30	-.01

†p < .10, *p < .05, **p < .01, ***p < .001

Effortful Control. Change in effortful control from time 2 to time 3 was significantly positively associated with increases in positive parenting from time 1 to time 3 ($r = .42$, $p < .05$), suggesting that children's effortful control increased as parents used more positive management practices. Moreover, an association in the predicted direction was observed for this relationship at different time points (i.e., effortful control – time 1 to time 3 with positive practices – time 1 to time 2; $r = .39$, $p < .10$). A trend was also noted in the analysis of the relationship between effortful control from time 2 to time 3 with parental structure for the same time period ($r = -.38$, $p < .10$), however this relationship did not reach significance.

To examine the effects of parenting on change in parents' reports of effortful control from time 1 to time 3 a hierarchical regression equation was computed. Change scores in effortful control from time 1 and time 2 and time 2 to time 3 were regressed onto change in effortful control from time 1 to time 3 in the first step along with change in positive practices from time 1 to time 3. Results are presented in Table 10. Statistically significant findings were not demonstrated for either positive or negative parenting practices. However, a trend was noted upon examination of the predictive effect of positive parenting from time 1 to time 3 on children's level of effortful control over the same period of time ($\beta = .37$, $p = .10$), which suggests that parents' use of positive practices predicted increases in children's level of effortful control over time. These results provide partial support for the assertion that changes in parenting would lead to changes in children's level of effortful control.

Table 10. Hierarchical Regression Analyses Predicting Change in Children's Effortful Control from Time 1 to Time 3

	Model 1	
	B (SE)	β
Effortful Control Time 1-2	.43 (.17)	.48*
Positive Practices Time 1-3	-.34 (.17)	.37†
F	4.56*	
R^2	.30*	
ΔR^2	.30*	

†p < .10, *p < .05, **p < .01, ***p < .001

Negative Affectivity. Correlations examining change scores revealed several significant relationships (Table 9). First, decreases in negative affectivity from time 1 to time 2 was significantly positively related to increases in parental efficacy from time 2 to time 3 (r = .41, p < .05), indicating that parents felt more effective following participation in the program despite children's increases in negative affectivity. A second significant relationship was evidenced for negative affectivity from time 1 to time 3 with parental structure from time 1 to time 3 (r = -.49, p < .05) which suggests that as parents' use of structure increased, children's negative affectivity decreased. Further, a trend emerged when examining this relationship at different time points (i.e., negative affectivity from time 1 to time 3 and structure from time 1 to time 2, r = -.36 and negative affectivity time 2 to time 3 and structure from time 1 to time 3, r = -.36, p < .10). These results indicate that increases in parents' use of structure leads to decreases in children's negative affectivity. Finally, contrary to hypothesized expectations, a trend emerged for the relationship between negative affectivity from time 1 to time 3 and positive practices from time 2 to time 3 (r = .37, p < .10), suggesting that despite increases in children's negative affectivity, parents' use of positive parenting strategies increased. It is likely that following participation in the behavioral module of the program, parents' attempts to implement positive changes resulted in escalation of children's problem behavior. However, after learning about temperament and its effect on behavior in the emotion module, parents felt more confidence in their ability to manage their children's behavioral and/or emotional dysregulation.

To investigate the effects of parental structure on change in parents' reports of children's negative affectivity from time 1 to time 3 a hierarchical regression equation was computed. The change in negative affectivity from time 1 to time 2 and the change in parental structure from time 1 to time 3 were regressed onto the change in negative affectivity from time 1 to time 3.

Results are presented in Table 11. The beta associated with change in structure from time 1 and time 3 was statistically negatively significant ($\beta = -.48$, $\underline{p} < .05$). This finding indicates that parents' use of more structure predicted decreases in their children's level of negative affectivity over time. These findings provide support for the hypothesis that changes in parenting would predict changes in children's level of negative affectivity.

Table 11. Hierarchical Regression Analyses Predicting Change in Children's Negative Affectivity from Time 1 to Time 3

	Model 1	
	B (SE)	β
Negative Affectivity Time 1-2	.25 (.16)	.28
Structure Time 1-3	-.51 (.19)	-.48*
F	5.09*	
R^2	.32*	
ΔR^2	.32*	

†p < .10, *p < .05, **p < .01, ***p < .001

Differential Program Effectiveness

In order to test this hypothesis, hierarchical regressions were computed examining the effect of each temperament variable (effortful control, negative affectivity) at time 1 on parenting (practices, styles, efficacy) and behavioral (internalizing and externalizing) outcomes. Correlational analyses were also computed to assess the strength and direction of the relationship between the temperament variables and changes in parenting and children's behavior, however no significant results were demonstrated (see Tables 12 and 13).

Table 12. Correlations between Change Scores – Temperament and Parenting

Parenting Practices – Change Scores	Temperament	
	Effortful Control Time 1	Negative Affectivity Time 1
Structure – Time 1-Time 2	-.04	.15
Structure – Time 2-Time 3	-.16	-.03
Structure – Time 1-Time 3	-.17	.13
Hostility – Time 1-Time 2	-.18	.19
Hostility – Time 2-Time 3	-.10	.02
Hostility – Time 1-Time 3	-.20	.14
Warmth – Time 1-Time 2	-.01	.14
Warmth – Time 2-Time 3	.06	-.17
Warmth – Time 1-Time 3	.05	-.06
Positive Practices – Time 1-Time 2	-.09	-.15
Positive Practices – Time 2-Time 3	.29	-.26
Positive Practices – Time 1-Time 3	.08	-.23
Negative Practices – Time 1-Time 2	.28	-.22
Negative Practices – Time 2-Time 3	-.04	.02
Negative Practices – Time 1-Time 3	.19	-.16
Efficacy – Time 1-Time 2	.06	.34
Efficacy – Time 2-Time 3	-.09	-.14
Efficacy – Time 1-Time 3	-.03	.18

[†]$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

Table 13. Correlations between Change Scores – Temperament and Behavior

Parenting Practices	Temperament	
	Effortful Control Time 1	Negative Affectivity Time 1
Internalizing – Time 1-Time 2	.20	-.07
Internalizing – Time 2-Time 3	-.25	.06
Internalizing – Time 1-Time 3	-.12	.02
Externalizing – Time 1-Time 2	-.05	.03
Externalizing – Time 2-Time 3	-.09	.07
Externalizing – Time 1-Time 3	-.10	.08

[†]p < .10, *p < .05, **p < .01, ***p < .001

Results of the regressions did not reach significant levels, but were in the predicted direction, in that children's initial level of effortful control was related to increases in parents' feelings of efficacy from time 1 to time 3 ($\beta = .31$, $p < .10$). Moreover, children's initial level of negative affectivity was related to increases in parental hostility from time 1 to time 3 ($\beta = .35$, $p < .10$). These results do not support the hypothesis that the program would be more effective for children with more vulnerable temperaments.

Temperament as a Moderator of the Association between Parenting Practices and Children's Behavior

To determine if children's level of effortful control moderates the association between parenting and children's problem behavior as proposed in hypothesis 6, the approach proposed by Baron & Kenny (1986) was used. As suggested by Jaccard, Turrisi, and Wan (1990), centering of the proposed moderator variable (temperament), as well as the independent variable (parenting), was used to limit collinearity. Linear multiple regression equations were run to determine if temperament (i.e., effortful control and negative affectivity) moderated the association between parenting and children's problem behaviors. Change scores were used as the dependent and independent variables. Only significant results are presented.

In these regressions, change in parenting over time was entered into the first step along with the moderator (temperament at time 1). The interaction term (i.e., change in parenting X temperament) was entered in the last step. Significant moderation effects were demonstrated, in addition to other related trends. First, negative affectivity moderated the association between decreases in parental hostility from time 2 to time 3 and decreases in children's externalizing behavior over this same period of time ($\beta = .44$, $p < .05$) and accounts for 29% of the variance (Table 14). Similar, but not significant, time 2 to time 3 results were obtained for the moderational effect of negative affectivity on decreases in parental hostility predicting decreases

in children's internalizing behavior ($\beta = .34$, $p < .10$). These results suggest that children's initial level of negative affectivity affects whether changes in parental hostility will lead to changes in problem behavior (Table 15). Post hoc probing revealed that children initially rated by their parents as having low levels of negative affectivity evidenced the greatest decrease in both internalizing and externalizing behaviors when exposed to hostile parenting, as compared to children higher in negative affectivity regardless of the level of hostile parenting.

Another trend was noted, as effortful control moderated the relationship between parental efficacy from time 1 to time 3 and children's externalizing behavior across this same time period ($\beta = .39$, $p < .10$), accounting for 17% of the variance and indicating that effortful control had an effect on whether increases in parents' feelings of efficacy led to decreases in children's externalizing symptoms (see Table 16). Post hoc probing further elucidated this effect, demonstrating that children higher in effortful control whose parents felt greater feelings of efficacy had the greatest reduction in externalizing behavior. Taken together, these results provide partial support for the hypothesized moderator of temperament.

Table 14. Negative Affectivity as a Moderator of the Association between Parental Hostility from Time 2 to Time 3 and Children's Externalizing Behavior from Time 2 to Time 3

	Model 1		Model 2	
	B (SE)	β	B (SE)	β
Predicting Externalizing Behavior from Time 2 to Time 3				
Hostility – Time 2-Time 3	.15 (.10)	.32	.10 (.09)	.21
Negative Affectivity – Time 1	.02 (.07)	.06	.00 (.06)	.01
Hostility – Time 2 to Time 3 X Negative Affectivity – Time 1			.37 (.16)	.44*
F	1.31		2.85†	
R^2	.11		.29*	
ΔR^2	.11		.18*	

†p < .10, *p < .05, **p < .01, ***p < .001

77

Figure 1

Post Hoc Analyses of Negative Affectivity as a Moderator of the Association between Parental Hostility from Time 2 to Time 3 and Children's Externalizing Behavior from Time 2 to Time 3
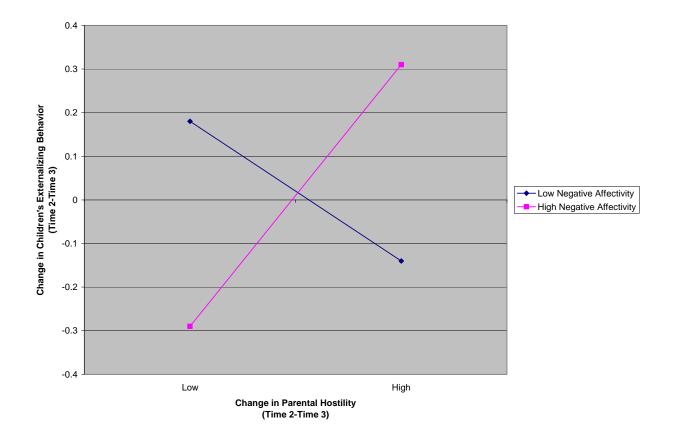
Table 15. Negative Affectivity as a Moderator of the Association between Parental Hostility from Time 2 to Time 3 and Children's Internalizing Behavior from Time 2 to Time 3

	Model 1		Model 2	
Predicting Internalizing Behavior from Time 2 to Time 3				
	B (SE)	β	B (SE)	β
Hostility – Time 2-Time 3	.30 (.09)	.57**	.26 (.09)	.40**
Negative Affectivity – Time 1	.02 (.06)	.05	.00 (.06)	.01
Hostility – Time 2 to Time 3 X Negative Affectivity – Time 1			.31 (.16)	.34†
F	5.28*		5.28**	
R^2	.32*		.43†	
ΔR^2	.32*		.11†	

†p < .10, *p < .05, **p < .01, ***p < .001

Table 16. Effortful Control as a Moderator of the Association between Parental Efficacy from Time 1 to Time 3 and Children's Externalizing Behavior from Time 1 to Time 3

	Model 1		Model 2	
	Predicting Externalizing Behavior from Time 1 to Time 3			
	B (SE)	β	B (SE)	β
Efficacy – Time 1-Time 3	-.18 (.24)	-.16	-.29 (.23)	-.26
Effortful Control – Time 1	-.04 (.08)	-.10	-.05 (.08)	-.12
Efficacy – Time 1 to Time 3 X Effortful Control – Time 1			.49 (.26)	.39[†]
F	.38		1.45	
R^2	.03		.17	
ΔR^2	.03		.14	

[†]$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

Discussion

The differential effectiveness of an enhanced parent education program was the focus of this study. The addition of a component that highlighted the roles of temperament and emotion regulation on children's behavior was expected to lead to the adoption of more positive parenting practices. Several hypotheses were evaluated. First, positive parenting was expected to be associated with better emotion regulation and improved behavior in children. Improvements in parents' and children's behavior were also expected. Moreover, increases in positive parenting were expected to predict positive changes in children's temperament. Stronger program effects were expected for children with more vulnerable temperaments as compared to those with less vulnerable temperaments. Finally, temperament was expected to moderate the association between parenting and children's behavior.

The results of this study provide partial support for these hypotheses in that adding an emotion regulation component to a traditional parent education program enhanced parenting. Parents used more positive management strategies, but felt less effective in the parenting role initially; feelings of efficacy returned to pre-test levels at the conclusion of the program. Differences in children's temperament were evidenced by significant increases in effortful control and decreases in negative affectivity. These results indicate that, while significant decreases in problem behavior were not demonstrated, changes in children's ability to regulate their emotions, as evidenced by increases in effortful control and decreases in negative affectivity, were noteworthy. Importantly, results of hierarchical regressions showed that positive parenting significantly predicted changes in children's temperament and is indicative of the influence of parenting on children's emotion regulation. Moderational analyses yielded promising results, which lend credence to the belief that child temperament influences whether parenting leads to changes in children's behavior.

81

Increases in Positive Parenting

Although changes were expected for all parenting variables, significant changes were only observed when examining differences in positive practices and parental efficacy from time 1 to time 2 (i.e., following the behavioral module of the program). That is, despite adopting more positive parenting practices over time, parents had fewer feelings of self-efficacy after time 2, but by time 3 feelings of efficacy grew and returned back to baseline levels. One interpretation of these findings is after parents learned traditional behavioral techniques, they felt less confident in their future ability to manage their children's behavior because they were more aware of their past use of ineffective disciplinary techniques, which likely contributed to the maintenance and possible exacerbation of their children's problem behaviors. Thus, it is important to teach parents new strategies for managing behavior without undermining their self-confidence as parents. The fact that positive practices increased following this initial decrease in efficacy lends support to the idea that despite their feelings of inadequacy, parents were willing to try new ways of managing their children's behavior and consistently implemented the strategies learned, in the hopes of realizing improvements in their children's behavior.

An unexpected finding emerged upon examination of changes in parenting and temperament in that increases in children's negative affectivity from time 1 to time 2 was associated with increases in parental efficacy from time 2 to time 3. One explanation may be that parents rated their children more negatively prior to participating in the emotion component of the program. However, after learning about temperament and its effects on behavior and determining their children's unique temperamental makeup, parents were not only more aware of the behavioral manifestations of temperament, but were able to tailor their styles and practices to complement their children's dispositional tendencies. As a result, parents began to feel more

confident in their ability to manage their children's behavior, as well as more competent to actually effect change in behavior regardless of their children's temperament.

Although parental efficacy decreased initially over time and was associated with increases in negative affectivity, a significant association with children's level of effortful control at time 1 and time 2 was demonstrated. Interestingly, higher levels of effortful control were associated with greater feelings of parental efficacy. Moreover, efficacy was significantly negatively related to children's level of negative affectivity. Taken together, these results suggest that parents of children who are better able to regulate their emotions feel more effective in the parenting role, whereas parents of children who tend to not regulate their emotions well (i.e., are higher in negative affectivity) lack confidence in their ability to manage their children's behavior. The existing literature states that parents of children with more vulnerable temperaments tend to employ more negative parenting practices in their attempts to manage their children's behavior. This finding has important implications for the development of parenting interventions and is directly applicable to this study, in particular, in that it highlights the need for temperament-based parent education. Thus, teaching parents about temperament and how to help their children to manage their emotions results in greater feelings of efficacy, which translates into more positive parenting.

With regard to the other parenting variables, differences in means were not demonstrated. Specifically, significant decreases in negative parenting practices were not observed over time. Nor were mean differences noted for parental warmth or hostility. It was expected that as positive parenting increased, negative parenting would decrease, however, this finding did not materialize. It may be that parents added more positive strategies, but remained wedded to their customary, more negative, practices initially. Perhaps, over time, parents will begin to see

improvements in their children's behavior as a result of the more positive practices and eventually discontinue their use of negative practices. A trend did emerge, however, with regard to parental structure in that parents tended to implement more rules and routines following the behavioral module of the program and continued to utilize these same strategies over time.

Changes in Children's Temperament and Behavior

One of the goals of this study was to investigate whether adding an emotion component to a traditional parent education program would result in parents adopting more positive ways of dealing with behavior problems in their children. Thus, changes in parenting were expected. However, findings revealed that not only did parents' management skills improve, children evidenced a significant improvement in their ability to regulate emotions. Specifically, this study found that effortful control increased significantly following the behavioral module, with a trend toward significance overall (i.e., from baseline to time 3). Moreover, children's reported level of negative affectivity evidenced a significant decrease across time. This noteworthy finding lends credence to the idea that the ability to regulate emotions, and temperament itself, is malleable and can be shaped by environmental and situational factors. In particular, the decrease in children's level of negative affectivity is remarkable, as children rated high in negative affectivity are at risk for developing both internalizing and externalizing behavior problems (Eisenberg et al., 1996). Although it may seem unlikely that temperament can change so quickly, it is necessary to consider the possibility that at the very least parents' views of their children may be changing which could then lead to a more positive parent-child relationship with subsequent improvements in parenting and children's behavior. Contrary to expectations, no significant decreases in problem behavior were found. A possible explanation for this lack of

significant findings may be that there was not enough time between sessions for parents to note observable positive changes in their children's behavior.

Regardless of the relatively short time between sessions, significant associations between change scores were found. In particular, overall increases in parental structure were associated with significant decreases in children's negative affectivity across time points. This finding is consistent with previous research, which underscores the importance of predictable routines for children (Baumrind, 1971) and the resulting benefits to their socioemotional development (Bor et al., 2002). In further support of this idea, a trend emerged when examining the relationship between increases in children's level of effortful control following the emotion component of the program and parental structure for this same period of time, thereby suggesting that parents' provision of greater levels of structure and routine are important ingredients for the development of emotion regulation in children. Indeed, children thrive when their world is organized and predictable, as evidenced by greater social competence, academic success, and fewer behavioral problems (Webster-Stratton, Reid, & Hammond, 2004).

Examination of the association between increases in positive parenting practices overall and increases in children's level of effortful control, as reported by their parents following the emotion component, also yielded a significant result. This indicated that as parents begin to employ more positive ways of managing their children's behavior and realize the effect of temperament on behavior, children's ability to regulate emotions increases. A trend was noted when looking at overall increases in children's effortful control and increases in parents' use of positive disciplinary strategies following the behavioral component of the program. Taken together, these results are promising as they suggest that when parenting improves so does children's emotion regulation. Although some research has been conducted regarding change in

parenting resulting from children's emotion regulation (Kennedy, Rubin, & Hastings, 2001), few studies have examined how children's ability to regulate emotions is shaped by changes in parenting (Scaramella & Leve, 2004; Shipman & Zeman, 2001), making this a burgeoning field of research.

Further examination of the associations between change in parenting and initial ratings of children's temperament did not yield any significant results. However, some unexpected findings were demonstrated when investigating possible associations between change in parenting and change in temperament. First, changes in parents' use of positive practices following the emotion component of the program were significantly associated with increases in children's level of negative affectivity overall. Along these same lines, parents reported greater feelings of efficacy following the emotion component, yet rated their children higher in negative affectivity. Quite possibly, once parents received information regarding child temperament and emotion regulation, their children's displays of negative affectivity became more salient, causing some parents to rate children more negatively across time. However, this was not the case for all parents.

Effect of Parenting on Children's Emotion Regulation

The first step in evaluating the effects of parenting on children's emotion regulation was to examine significant associations among these variables. Analyses revealed several strong relationships in predicted directions across time. Overall, positive parenting and feelings of efficacy were associated with increases in children's level of effortful control and decreases in their level of negative affectivity. Conversely, negative parenting was related to increases in children's level of negative affectivity and decreases in children's level of effortful control. In particular, parental hostility was positively related to children's level of negative affectivity.

86

Moreover, negative practices were associated positively with children's level of negative affectivity and negatively with children's level of effortful control. Similar associations were found for the association between both positive practices and parental warmth with children's level of effortful control. These findings have important implications for the development of emotion regulation, in that it underscores the powerful influence of parenting on children's socioemotional development.

The strongest and most consistent relationship that emerged was also the most unexpected. Parental self-efficacy was significantly related across time to children's level of effortful control. Based on this association, it can be inferred that children's ability to regulate their emotions affects parents' feelings of efficacy. It may be that parents feel more confident in the parenting role when they have children who are better able to tolerate stressful stimuli. Alternatively, these parents may also be better able to regulate their own emotions, and thus are more effective emotion coaches for their children. As a result, they experience greater success in managing their children's behavior develop increased feelings of efficacy over time, which further enhances their feelings of competence and leads them to use positive child management strategies more confidently (Teti & Gelfand, 1991).

Keeping in mind the significant associations between changes in parenting and changes in emotion regulation, the next logical step was to determine whether changes in parenting actually predicted changes in children's emotion regulation. Results of analyses revealed that after controlling for initial changes in temperament, parenting did, in fact, lead to changes in children's ability to regulate emotions. First, increases in parents' use of structure resulted in decreases in children's level of negative affectivity over time, which is consistent with previous findings of significant associations between these two variables. A trend was also observed with

regard to the effects of increases in positive parenting practices on increases in children's level of effortful control. These results provide further evidence for the link between parenting and children's emotion regulation and highlight the need for further research in this area.

Temperament as a Moderator

Research has clearly delineated the importance of child temperament as a predictor of children's behavior (Caspi et al., 1995; Derryberry & Rothbart, 1997; Eisenberg et al., 1996; Eisenberg et al., 2000b; Shaw et al., 1994) and social competence (Dodge & Price, 1994; Eisenberg et al., 2000a; Kochanska et al., 2000; Ladd & Ladd, 1998; Rothbart et al., 1994). Temperament also has been shown to predict parenting practices, in that children rated as having more vulnerable temperaments tend to elicit harsh parenting (Belsky et al., 1998; Morris et al., 2002; Putnam et al., 2002; Sanson & Rothbart, 1995; Scaramella & Leve, 2004; Turecki & Tonner, 2000). However, there has been a paucity of research investigating the moderational effects of temperament in the association between parenting and children's behavior. The aim of this study was to explore whether educating parents about this relationship leads to improvements in both parenting and child behavior.

Analyses conducted revealed somewhat promising results. While significant moderational effects were not found for many of the parenting variables, notable interactions evidenced a consistent pattern of results. The strongest finding was demonstrated when examining parental hostility as a predictor of children's problem behavior, particularly children's externalizing behavior. Increases in hostile parenting led to increases in children's externalizing behavior for children who were initially rated by their parents as having high levels of negative affectivity. It can be inferred that the converse is also true in that under the condition of low negative affectivity initially, decreases in parental hostility predicted decreases in children's

88

externalizing behavior. Similar, but not significant, results were also observed for decreases in internalizing behavior. Moreover, a trend emerged illustrating the moderational effects of effortful control on the relationship between changes in parental efficacy and changes in children's level of externalizing behavior across all time points.

These results suggest and support the hypothesis that children's temperament has an effect on parents' ability to manage problem behavior. For children who are better regulated (i.e., high effortful control, low negative affectivity), parenting tends to be somewhat easier and more positive. However, when parents modify their strategies to match their children's temperament, more significant reductions in problem behavior are realized. Stated another way, children with less vulnerable temperaments generally show improvements in their behavior as a result of positive parenting. However, children with more vulnerable temperaments get better in terms of problem behavior when their parents are able to tailor their management strategies and style to complement their unique temperamental dispositions. Moreover, parents who have confidence in their ability to manage their children's behavior may be better able to actually reduce problem behaviors in their children. Thus, it can be said that efficacy yields results, as parents who feel they can manage their children's behavior experience more success in their attempts to do so.

Although significant results were demonstrated for several parenting and temperament variables, the question of whether these findings should be interpreted with caution must be addressed. The techniques taught in traditional parent education programs have been designed and proven to be effective with a middle-class, Caucasian population. Because this sample was predominantly low-income, African-American parents, it is necessary to consider whether a lack

of cultural sensitivity in the content of the program had any effect on the detection of significant results.

Research has been conducted to evaluate the effects of race and culture on intervention outcomes (Coard, Wallace, Stevenson, & Brotman, 2004; MacPhee et al., 1996; Webster-Stratton, 1998). In the current literature, results suggest that traditional programs yield similar results with culturally diverse and economically disadvantaged populations (Webster-Stratton, 1998). Middlemiss (2003) studied parenting behavior in impoverished African-American and Caucasian mothers of 3-5 year olds and found that both groups reported similar parenting styles and practices. Perhaps poverty has more of an impact on parenting than simply culture. Thus, these findings suggest that not only do programs need to be developed which are racially-sensitive, but also implement modifications which serve to maximize the acquisition of skills by low-income parents who experience high levels of stress as this may exacerbate negative parenting practices and prevent the remediation of children's problem behavior.

Parents provided feedback regarding their impressions of the *Positive Parenting Project*. Despite lack of noticeable change in children's problem behavior, parents reported general satisfaction with the program both in terms of content and format. Interestingly, parents indicated that they found the behavioral component to be more helpful than the emotion component. Yet, significant changes (i.e., improvements) over time were only reported for children's ability to regulate emotions, not behavior. The fact that parents rated the program favorably lends support to the idea that they will continue to implement the strategies learned in an attempt to more positively manage their children's behavior.

Several limitations of this investigation should be noted. First, the sample size is small, limiting the generalizability of the results. Final analyses were based on 25 cases and, for one variable, analyses were run on only 24 cases due to incomplete data. A larger sample of subjects may have provided greater statistical power to detect more subtle influences. Issues with recruitment and attrition may have been due to the fact that parents tend to be overtaxed and overburdened with a larger number of competing demands, the greatest of which is actually being a parent. For this sample in particular, parents were working full- or part-time, were enrolled in school, or had more than one child. Additionally, some parents had health problems or physical limitations. Consequently, they may be less motivated to participate in activities that do not directly benefit them or their children, regardless of their desire to improve their parenting and better manage their children's behavior. Related to this idea, since difficulties were encountered in the recruitment of a large enough sample, there was no control group which would allow for comparison of the effects of participation in a traditional parent education program versus a group with an added emotion component.

Time constraints were also a significant limitation of this study. Parenting sessions were conducted once per week for three hours over a three-week period in the interest of efficiency. Because of the abbreviated time between sessions, sufficient time may not have elapsed in order for significant changes in parenting and behavior to be realized. Moreover, of the three hours, forty-five minutes of each session were used for parents to complete study measures. The remaining time was devoted to teaching the content of the program. Thus, there was not sufficient time for parents to role-play and practice the techniques taught in session. Moreover,

discussion and questions were limited in an effort to allow time for the facilitator to slow the pace of presentation so that parents' received the maximum benefit.

Third, parent self-report was used to gather information regarding the style and practices employed by parents for managing their children's behavior. Parents may have felt the need to provide a socially desirable response and portray themselves in a more favorable light. Thus, assessments of others' (e.g., children, spouse) perceptions of the quality of parenting provided could have been conducted in order to ensure more reliable responses. Moreover, using additional reporters (i.e., teacher) of children's problem behavior and temperament, and examining agreement across reporters, may have yielded a different pattern of results. Utilizing this multi-informant approach may have increased the likelihood of obtaining significant results. Moreover, collecting observational data examining parent-child interactions may have more clearly distinguished the effects of participation in the *Positive Parenting Project*, allowing for a more direct assessment of actual parenting practices and styles.

Despite these limitations, this study reveals several important considerations when designing interventions aimed at improving parenting ability. First, since parental self-efficacy was strongly related to increases in children's ability to manage their emotions, future research should focus on developing interventions that are designed to enhance parents' feelings of competence in their ability to manage their children's emotions and subsequent behavior. Second, results provided evidence linking parenting practices to children's problem behavior conditioned upon children's initial temperament rating. Currently, the literature purports that the use of positive management strategies leads to decreases in children's problem behavior, and conversely, that negative strategies lead to increases in problem behavior. The findings of the present study suggest that temperament may be an important correlate of this relationship.

Research examining this issue in greater depth is needed so that more effective, temperament-

based parenting interventions may be developed.

References

Aiken, L. S. & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage Publications.

Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51(6),*1173-1182.

Bates, J. E., Pettit, G. S., Dodge, K. A., & Ridge, B. (1998). Interaction of temperamental resistance to control and restrictive parenting in the development of externalizing behavior. *Developmental Psychology, 34(5),* 982-995.

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

Baumrind, D. (1968). Authoritarian vs. authoritative parental control. *Adolescence, 3(11),* 255-272.

Belsky, J. (1997). Theory testing, effect-size evaluation, and differential susceptibility to rearing influence: The case of mothering and attachment. *Child Development, 68,* 598-600.

Belsky, J. (1984). Determinants of parenting: A process model. *Child Development, 55,* 83-96.

Belsky, Hsieh, K., & Crnic, K. (1998). Mothering, fathering, and infant negativity as antecedents of boys' externalizing problems and inhibition at age 3 years: Differential susceptibility to rearing experience? *Development and Psychopathology, 10,* 301-319.

Bor, W., Sanders, M. R., & Markie-Dadds, C. (2002). The effects of the Triple-P positive parenting program on preschool children with co-occurring disruptive behavior and attentional/hyperactive difficulties. *Journal of Abnormal Child Psychology, 30(6),* 571-587.

Borkowski, J.G., Ramey, S.L. & Stiles, C. (2002). Parenting research: Translations to parenting

    practices. In J.G. Borkowski, S.L. Ramey & M. Bristol-Power (Eds.), *Parenting and the*

    child's world: Influences on academic, intellectual, and social-emotional development

    (pp. 365-386). Mahwah, NJ: Lawrence Erlbaum Associates.

Bradley, R.H. & Corwyn, R.F. (1999). Parenting. In L. Balter & C. Tamis-LeMonda (Eds.),

    Child psychology: A handbook of contemporary issues (pp. 339-362). Philadelphia:

    Taylor & Francis.

Bradley, S. J., Jadaa, D., Brody, J., Landy, S., Tallett, S. E., Watson, W., Shea, B., & Stephens,

    D. (2003). Brief psychoeducational parenting program: An evaluation and 1-year follow-

    up. *Journal of the American Academy of Child and Adolescent Psychiatry, 42(10),* 1171-

    1178.

Brestan, E. V. & Eyberg, S. M. (1998). Effective psychosocial treatments of conduct-disordered

    children and adolescents: 29 years, 82 studies, and 5,272 kids. *Journal of Clinical Child*

    Psychology, 27(2), 180-189.

Buss, A. H. & Plomin, R. (1984). *Temperament: Early developing personality traits.* Hillsdale,

    NJ: Lawrence Erlbaum Associates.

Cameron, J. R., & Rice, D. C. (1986). Developing anticipatory guidance programs based on early

    assessment of infant temperament: Two tests of a prevention model. *Journal of Pediatric*

    Psychology, 11, 221-234.

Carey, W. B., & McDevitt, S. C. (1995). *Coping with children's temperament: A guide for*

    professionals (pp. 8-33). New York: Basic Books.

Caspi, A., Moffitt, T. E., & Silva, P.A. (1995). Temperamental origins of child and adolescent

    behavior problems: From age 3 to age 15. *Child Development, 66,* 55-68.

Coard, S. I., Wallace, S. A., Stevenson, H. C., & Brotman, L. M. (2004). Towards culturally-relevant preventive interventions: The consideration of racial socialization in parent training with African-American families. *Journal of Child and Family Studies, 13(3),* 277-293.

Coie, J. D. (1996). Prevention of violence and antisocial behavior. In R. D. Peters & R. J. McMahon (Eds.), *Preventing childhood disorders, substance abuse, and delinquency* (pp. 1-18). Thousand Oaks, CA: Sage.

Coie, J. D. & Dodge, K. A. (1998). Aggression and antisocial behavior. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology: Fifth edition: Social, emotional, and personality development. Vol. 3* (pp. 779-862). New York: John Wiley & Sons.

Coleman, P. K. & Karraker, K. H. (1997). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review, 18,* 47-85.

Conduct Problems Research Group (2002). Evaluation of the first 3 years of the Fast Track Prevention Trial with children at high risk for adolescent conduct problems. *Journal of Abnormal Child Psychology, 30,* 19-35.

Crockenberg, S. & Leerkes, S. (2000). Infant social and emotion development in family context. In C.H. Zeanah (Ed.), *Handbook of infant mental health, 2nd ed.* (pp. 60-90). New York: The Guilford Press.

Crockenberg, S. & Litman, C. (1990). Autonomy as competence in 2-year-olds: Maternal correlates of child defiance, compliance, and self-assertion. *Developmental Psychology, 26(6),* 961-971.

Darling, N. & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin, 113,* 487-496.

Denham, S. A. (1998). *Emotional development in young children.* New York: Guilford Press.

Derryberry, D. & Rothbart, M. K. (1997). Reactive and effortful processes in the organization of

temperament. *Development and Psychopathology, 9,* 633-652.

Dodge, K. A. & Price, J. M. (1994). On the relation between social information processing and

social competent behavior in early school-aged children. *Child Development, 65,* 1385-

1397.

Dumas, J. E., & Wahler, R. G. (1983). Predictors of treatment outcome in parent training:

Mother insularity and socioeconomic disadvantage. *Behavioral Assessment, 5,* 301-313.

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion.

Psychological Inquiry, 9, 241-273.

Eisenberg, N. & Fabes, R. A. (1998). Prosocial development. In W. Damon & N. Eisenberg

(Eds.), *Handbook of child psychology. Vol. 3: Social, emotional, and personality

development* (5th ed., pp. 701-778). New York: John Wiley & Sons, Inc.

Eisenberg, N., Fabes, R. A., Guthrie, I. K., Murphy, B., C., Maszk, P., Holmgren, R., & Suh, K.

(1996). The relations of regulation and emotionality to problem behavior in elementary

school children. *Development and Psychopathology, 8,* 141-162.

Eisenberg, N., Fabes, R. A., Guthrie, I. K., & Reiser, M. (2000a). Dispositional emotionality and

regulation: Their role in predicting social functioning. *Journal of Personality and Social

Psychology, 78(1),* 136-157.

Eisenberg, N., Fabes, R. A., Shepard, S. A., Guthrie, I. K., Murphy, B. C. & Reiser, M. (1999).

Parental reactions to children's negative emotions: Longitudinal relations to quality of

children's social functioning. *Child Development, 70,* 513-534.

Eisenberg, N., Gershoff, E. T., Fabes, R. A., Shepard, S. A., Cumberland, A. J., Losoya, S. H., Guthrie, I. K., & Murphy, B. C. (2001b). Mothers' emotional expressivity and children's behavior problems and social competence: Mediation through children's regulation. *Developmental Psychology, 37(4),* 475-490.

Eisenberg, N., Guthrie, I. K., Fabes, R. A., Shepard, S., Losoya, S., Murphy, B. C., Jones, S., Poulin, R., & Reiser, M. (2000). Prediction of elementary school children's externalizing problem behaviors from attentional and behavioral regulation and negative emotionality. *Child Development, 71(5),* 1367-1382.

Eisenberg, N., Losoya, S., Fabes, R. A., Guthrie, I. K., Reiser, M., Murphy, B., Shepard, S., A., Poulin, R., & Padgett, S. J. (2001b). Parental socialization of children's dysregulated expression of emotion and externalizing problems. *Journal of Family Psychology, 15,*183-205.

Eisenberg, N., & Morris, A. S. (2002). Children's emotion-related regulation. In R. V. Kail (Ed.), *Advances in child development and behavior* (pp. 189-229). New York: Academic Press.

Eisenberg, N., Morris, A. S., & Spinrad, T. L. (in press). Emotion-related regulation: The construct and its measurement. In D. Teti (Ed.), *Handbook of research methods in developmental psychology.* Blackwell Publishers.

Eisenberg, N., Valiente, C., Morris, A. S., Fabes, R. A., Cumberland, A., Reiser, M., Gershoff, E. T., Shepard, A., & Losoya, S. (2003). Longitudinal relations among parental emotional expressivity, children's regulation, and quality of socioemotional functioning. *Developmental Psychology, 39(1),* 3-19.

Fabes, R. A. (1994). Behavioral and physiological mediators of gender segregation. In C. Leaper (Ed.), *Gender segregation: Causes and consequences* (pp. 19-34). San Francisco: Jossey-Bass.

Fabes, R. A. & Eisenberg, N. (1992). Young children's coping with interpersonal anger. *Child Development, 63,* 116-128.

Fabes, R. A., Eisenberg, N., Karbon, M., Bernzweig, J., Speer, A. L., & Carlo, G. (1994). Socialization of children's vicarious emotional responding and prosocial behavior: Relations with mothers' perceptions of children's emotional reactivity. *Developmental Psychology, 30(1),* 44-55.

Fabes, R. A., Leonard, S. A., Kupanoff, K., & Martin, C. L. (2001). Parental coping with children's negative emotions: Relations with children's emotional and social responding. *Child Development, 72,* 907-920.

Fabes, R. A., Poulin, R. E., Eisenberg, N., & Madden-Derdich, D. A. (2002). The Coping with Children's Negative Emotions Scale (CCNES): Psychometric Properties and Relations with Children's Emotional Competence. *Marriage and Family Review, 34(3-4),* 285-310.

Forehand, R. L., & McMahon, R. J. (2003). *Helping the noncompliant child: Family-based treatment for oppositional behavior* (2nd ed.). New York: Guilford Publications, Inc.

Forehand, R. L. & McMahon, R. J. (1981). *Helping the noncompliant child: A clinician's guide to parent training*. New York: The Guilford Press.

Frick, P. J., & Morris, A. S. (2004). Temperament and developmental pathways to conduct problems. *Journal of Clinical Child and Adolescent Psychology, 33(1),* 54-68.

Gallagher, K. C. (2002). Does child temperament moderate the influence of parenting on adjustment? *Developmental Review, 22,* 623-643.

Goldsmith, H. H. & Rothbart, M. K. (1991). Contemporary instruments for assessing early

  temperament by questionnaire and in the laboratory. In J. Strelau & A. Angleitner (Eds),

  Explorations in temperament: International perspectives on theory and measurement.

  Perspectives on individual differences (pp. 249-272). New York: Plenum Press

Gottman, J. M., Katz, L. F., & Hooven, C. (1997). *Meta-emotion: How families communicate*

  emotionally. Mahwah, NJ: Lawrence Erlbaum Associates.

Gottman, J. M., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion philosophy and the

  emotional life of families: Theoretical models and preliminary data. *Journal of Family*

  Psychology, 10, 243-268.

Greene, R. W. (2001). *The explosive child* (2nd ed.). New York: HarperCollins Publishers.

Grolnick, W. S. & Ryan, R. M. (1989). Parent styles associated with children's self-regulation

  and competence in school. *Journal of Educational Psychology, 81(2),* 143-154.

Halberstadt, A. G., Crisp, V. W., & Eaton, K. L. (1999). Family expressiveness: A retrospective

  and new direction for research. In P. Philipote, R. S. Feldman, & E. Coates (Eds.), *The*

  social context of nonverbal behavior (pp. 109-155). New York: Cambridge University

  Press.

Hembree-Kigin, T. L., & McNeil, C. B. (1995). *Parent-child interaction therapy*. New York:

  Kluwer Academic/Plenum Publishers.

Holmbeck, G. N. (2002). Post-hoc probing of significant moderational and mediational effects in

  studies of pediatric populations. *Journal of Pediatric Psychology, 27(1),* 87-96.

Jaccard, J., Wan, C. K., & Turrisi, R. (1990). The detection and interpretation of interaction

  effects between continuous variables in multiple regression. *Multivariate Behavioral*

  Research, 25(4), 467-478.

Jacobson, N. A., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59(1),* 12-19.

Kaufman, D., Gesten, E., Santa Lucia, R. C., Salcedo, O., Rendina-Gobioff G., & Gadd, R. (2000). The relationship between parenting style and children's adjustment: The parents' perspective. *Journal of Child and Family Studies, 9(2),* 231-245.

Kazdin, A. E. (2000). Perceived barriers to treatment participation and treatment acceptability among antisocial children and their families. *Journal of Child and Family Studies, 9,* 157-174.

Kazdin, A. E. (1997a). Parent management training: Evidence, outcomes, and issues. *Journal of the American Academy of Child and Adolescent Psychiatry, 36(10),* 1349-1356.

Kazdin, A. E. (1997b). Practitioner review: Psychosocial treatments for conduct disorder in children. *Journal of Child Psychology and Psychiatry, 38(2),* 161-178.

Kazdin, A. E. (1996a). *Conduct disorders in childhood and adolescence* (2nd ed). London: Sage Publications, Inc.

Kazdin, A. E. (1996b). Dropping out of child psychotherapy: Issues for research and implications for practice. *Clinical Child Psychology and Psychiatry, 1,* 133-156.

Kazdin, A. E. (1993). Treatment of conduct disorder: Progress and directions in psychotherapy research. *Development and Psychopathology, 5,* 277-310.

Kazdin, A. E., Esveldt-Dawson, K., French, N. H., & Unis, A. S. (1987). Effects of parent management training and problem-solving skills training combined in the treatment of antisocial child behavior. *Journal of the American Academy of Child and Adolescent Psychiatry, 26(3),* 426-424.

Kazdin, A. E., Siegel, T. C., & Bass, D. (1992). Cognitive problem-solving skills training and parent management training in the treatment of antisocial behavior in children. *Journal of Consulting and Clinical Psychology, 60(5),* 733-747.

Kazdin, A. E. & Wassell, G. (2000). Therapeutic changes in children, parents, and families resulting from treatment of children with conduct problems. *Journal of the American Academy of Child and Adolescent Psychiatry, 39(4),* 414-420.

Kazdin, A. E., & Wassell, G. (1999). Barriers to treatment participation and therapeutic change among children referred for conduct disorder. *Journal of Clinical Child Psychology, 28,* 160-172.

Kazdin, A. E. & Weisz, J. R. (1998). Identifying and developing empirically supported child and adolescent treatments. *Journal of Consulting and Clinical Psychology, 66(1),* 19-36.

Kendall, P. C. & Braswell, L. (1985). *Cognitive-behavioral therapy for impulsive children.* New York: Guilford Press.

Kendall, P. C., Henin, A., MacDonald, J. P., & Treadwell, K. R. H. (1998). *Parent ratings of anxiety in the children: Development and validation of the CBCL-A.* Unpublished manuscript: Temple University.

Kennedy, A. E., Rubin, K. H., & Hastings, P.D. (2004). Longitudinal relations between child vagal tone and parenting behavior: 2 to 4 years. *Developmental Psychobiology, 45(1),* 10-21.

Kochanska, G. (1997). Multiple pathways to conscience for children with different temperaments: From toddlerhood to age 5. *Developmental Psychology, 33,* 228-240.

Kochanska, G. (1995). Children's temperament, mother's discipline, and security of attachment: Multiple pathways to emerging internalization. *Child Development, 66,* 597-615.

Kochanska, G., Murray, K. T., & Harlan, E. T. (2000). Effortful control in early childhood: Continuity and change, antecedents, and implications for social development. *Developmental Psychology, 36,* 220-232.

Krevans, J. & Gibbs, J.C. (1996). Parents' use of inductive discipline: Relations to children's empathy and prosocial behavior. *Child Development, 67*, 3263-3277.

Kuczynski, L., Kochanska, G., Radke-Yarrow, M. & Girnius-Brown, O. (1987). A developmental interpretation of young children's noncompliance. *Developmental Psychology, 23*, 799-806.

Ladd, G.W. & Ladd, B.K. (1998). Parenting behaviors and parent-child relationships: Correlates of peer victimization in kindergarten? *Developmental Psychology, 34(6),* 1450-1458.

Leadbeater, B. J. & Bishop, S.J. (1994). Predictors of behavior problems in preschool children of inner-city Afro-American and Puerto Rican adolescent mothers. *Child Development, 65*, 638-648.

Lochman, J. E. & Conduct Problems Prevention Research Group (1995). Screening of child behavior problems for prevention programs at school entry. *Journal of Consulting and Clinical Psychology, 63,* 549-559.

Loeber, R. & Farrington, D. P. (1998). Never too early, never too late: Risk factors and successful interventions for serious and violent juvenile offenders. *Studies on Crime and Crime Prevention, 7(1)*, 7-30.

Loeber, R., Wung, P., Keenan, K., Giroux, B., Stouthamer-Loeber, M., van Kammen, W. B., & Maughan, B. (1993). Developmental pathways in disruptive problem behavior. *Development and Psychopathology, 5,* 103-133.

Lytton, H. (1990). Child and parent effects in boys' conduct disorder: A reinterpretation. *Developmental Psychology, 26,* 683-697.

MacPhee, D., Fritz, J., & Miller-Heyl, J. (1996). Ethnic variations in personal social networks and parenting. *Child Development, 67,* 3278-3295.

McMahon, R. J. (1999). Parent training. In S. W. Russ & T. H. Ollendick (Eds.), *Handbook of psychotherapies with children and families* (pp. 153-180). New York: Kluwer Academic/Plenum Publishers.

Middlemiss, W. (2003). Brief report: Poverty, stress, and support: Patterns of parenting behaviour among lower income black and lower income white mothers. *Infant and Child Development, 12*, 293-300.

Miller, G. E., & Prinz, R. J. (1990). Enhancement of social learning family interventions for childhood conduct disorder. *Psychological Bulletin, 108(2), 291-307.*

Mize, J. & Pettit, G.S. (1997). Mothers' social coaching, mother-child relationship style, and children's peer competence: Is the medium the message? *Child Development, 68(2)*, 312-332.

Morris, A. S., Silk, J. S., Steinberg, L., Sessa, F. M., Avenevoli, S., & Essex, M. J. (2002). Temperamental vulnerability and negative parenting as interacting predictors of child adjustment. *Journal of Marriage and Family, 64,* 461-471.

Newman, D. L., Caspi, A., Moffitt, T. E., & Silva, P. A. (1997). Antecedents of adult interpersonal functioning: Effects of individual differences in age 3 temperament. *Developmental Psychology, 33,* 206-217.

Parke, R.D. (1994). Progress, paradigms, and unresolved problems: A commentary on recent advances in our understanding of children's emotions. *Merrill-Palmer-Quarterly, 40(1),* 157-169.

Patterson, G.R. (1982). *Coercive family process.* Eugene, OR: Castalia.

Patterson, G. R., Dishion, T. J., & Chamberlain, P. (1993). Outcomes and methodological issues relating to treatment of antisocial children. In T.R. Giles (Ed.), *Handbook of effective psychotherapy* (pp. 43-87). New York: Plenum Press.

Putnam, S. P., Sanson, A. V., & Rothbart, M. K. (2002). Child temperament and parenting. In M. H. Bornstein (Ed.), *Handbook of Parenting (2nd ed.). Vol. 1: Children and parenting.* Mahwah, NJ: Lawrence Erlbaum Associates.

Reid, M. J. & Webster-Stratton, C. (2001). The Incredible Years parent, teacher, and child intervention: Targeting multiple areas of risk for a young child with pervasive conduct problems using a flexible, manualized treatment program. *Cognitive and Behavioral Practice, 8,* 377-386.

Rothbart, M. K. & Ahadi, S. A. (1994). Temperament and the development of personality. *Journal of Abnormal Psychology, 103(1),* 55-66.

Rothbart, M. K., Ahadi, S. A., & Hershey, K. L. (1994). Temperament and social behavior in childhood. *Merrill-Palmer Quarterly, 40,* 21-39.

Rothbart, M. K., Ahadi, S. A., Hershey, K. L., & Fisher, P. (2001). Investigations of temperament at three to seven years: The Children's Behavior Questionnaire. *Child Development, 72(5),* 1394-1408.

Rothbart, M. K., & Bates, J. E. (1998). Temperament. N. Eisenberg (Ed.), W. Damon (Series

    Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality*

    development (pp. 105-176). New York: Wiley.

Rothbaum, F. & Weisz, J. R. (1994). Parental caregiving and child externalizing behavior in

    nonclinical samples: A meta-analysis. *Psychological Bulletin, 116,* 55-74.

Rubin, K. H., Coplan, R. J., Fox, N. A., & Calkins, S. D. (1995). Emotionality, emotion

    regulation, and preschoolers' social adaptation. *Development and Psychopathology, 7,*

    49-62.

Rubin, K. H., Nelson, L. J., Hastings, P., & Asendorpf, J. (1999). The transaction between

    parents' perceptions of their children's shyness and their parenting styles. *International*

    Journal of Behavioral Development, 23, 937-957.

Sanders, M. R. (1999). The Triple P Positive Parenting Program: Towards an empirically

    validated multilevel parenting and family support strategy for the prevention of behavior

    and emotional problems in children. *Clinical Child and Family Psychology Review, 2,*

    71-90.

Sanders, M. R., Cann, W., & Markie-Dadds, C. (2003). The Triple P-Positive Parenting

    Programme: A universal population-level approach to the prevention of child abuse.

    Child Abuse Review, 12, 155-171.

Sanders, M. R., Markie-Dadds, C., Tully, L. A., & Bor, W. (2000). The Triple P-Positive

    Parenting Program: A comparison of enhanced, standard, and self-directed behavioral

    family intervention for parents of children with early onset conduct problems. *Journal of*

    Consulting and Clinical Psychology, 68(4), 624-640.

Sanson, A. V. & Rothbart, M. K. (1995). Child temperament and parenting. In M. H. Bornstein (Ed.), *Handbook of parenting: Vol. 1: Children and parenting (2nd ed.),* (pp. 255-277). Mahwah, NJ: Lawrence Erlbaum Associates.

Scaramella, L. V., & Leve, L. (2004). Clarifying parent-child reciprocities during early childhood: The early childhood coercion model. *Clinical Child & Family Psychology Review, 7(2),* 89-107

Sessa, F., M., Avenevoli, S., Steinberg, L., & Morris, A. S. (2001). Correspondence among informants on parenting: Preschool children, mothers, and observers. *Journal of Family Psychology, 15,* 53-68.

Shaw, D. S., Keenan, K., & Vondra, J. I. (1994). Developmental precursors of externalizing behavior: Ages 1 to 3. *Developmental Psychology, 30,* 355-364.

Sheeber, L. B. & Johnson, J. H. (1994). Evaluation of a temperament-focused, parent-training program. *Journal of Clinical Child Psychology, 23(3),* 249-259.

Sheeber, L. B. & McDevitt, S. C. (1998). Temperament-focused parent training. In J. M. Briesmeister & C. E. Schaefer (Eds.), *Handbook of parent training: Parents as co-therapists for children's behavioral problems (2nd ed.)*, pp. 479-507. New York: John Wiley & Sons.

Shipman, K. L, & Zeman, J. (2001). Socialization of children's emotion regulation in mother-child dyads: A developmental psychopathology perspective. *Development and Psychopathology, 13(2),* 317-336.

Smith, D. C., Adelman, H. S., Nelson, P. & Taylor, L. (1987). Anger, perceived control and school behavior among students with learning problems. *Journal of Child Psychology and Psychiatry, 29,* 517-522.

Stoolmiller, M., Eddy, J. M., & Reid, J. B. (2000). Detecting and describing preventive

    intervention effects in a universal school-based randomized trial targeting delinquent and

    violent behavior. *Journal of Consulting and Clinical Psychology, 68*, 296-306.

Teti, D., & Gelfand, D. (1991). Behavioral competence among mothers of infants in the first

    year: The mediational role of maternal self-efficacy. *Child Development, 62,* 918-929.

Thomas, A. & Chess, S. (1977). *Temperament and development.* New York: Bruner-Mazel.

Thompson, R. A. (1999). The individual child: Temperament, emotion, self, and personality. In

    M. H. Bornstein & M. E. Lamb (Eds.), *Developmental psychology: An advanced textbook*

    (4th ed., pp. 377-409). Mahwah, NJ: Lawrence Erlbaum Associates.

Turecki, S., & Tonner, L. (2000). *The difficult child (rev ed.).* New York: Bantam Books.

Webster-Stratton, C. (2000). The Incredible Years Training Series. *Office of Juvenile Justice and*

    Delinquency Prevention Juvenile Justice Bulletin. Washington, DC: U.S. Department of

    Justice.

Webster-Stratton, C. (1994). Advancing videotape parent training: A comparison study. *Journal*

    of Consulting and Clinical Psychology, 62(3), 583-593.

Webster-Stratton, C. & Hammond, M. (1997). Treating children with early-onset conduct

    problems: A comparison of child and parent training interventions. *Journal of Consulting*

    and Clinical Psychology, 65, 93-109.

Webster-Stratton, C. & Lindsay, D. W. (1999). Social competence and early-onset conduct

    problems: Issues in assessment. *Journal of Child Clinical Psychology, 28,* 25-93.

Webster-Stratton, C., Reid, M. J., & Hammond, M. (2004). Treating children with early-onset

    conduct problems: Intervention outcomes for parent, child, and teacher training. *Journal*

    of Clinical Child and Adolescent Psychology, 33(1), 105-124.

Webster-Stratton, C., Reid, J., & Hammond, M. (2001). Social skills and problem-solving

    training for children with early-onset conduct problems: Who benefits? *Journal of Child*

    Psychology and Psychiatry, 42(7), 943-952.

Webster-Stratton, C. & Taylor, T. (2001). Nipping early risk factors in the bud: Preventing

    substance abuse, delinquency, and violence in adolescence through interventions targeted

    at young children (0-8 years). *Prevention Science, 2(3),* 165-192.

Zhou, Q., Eisenberg, N., Losoya, S. H., Fabes, R. A., Reiser, M., Guthrie, I. K., Murphy, B. C.,

    Cumberland, A. J., & Shepard, S. A. (2002). The relations of parental warmth and

    positive expressiveness to children's empathy-related responding and social functioning:

    A longitudinal study. *Child Development, 73(3),* 893-915.

Appendix A.
Positive Parenting Project Curriculum

***Program Overview*:**

        The Positive Parenting Project Program assists parents of elementary school aged children in raising healthy and resilient children in the environment in which they live. This program examines and addresses factors that impact the healthy development of young children. It encourages parents to become active participants in their children's lives; offers support, education and training to build on and/or strengthen existing parenting skills and confidence; and teaches parents to tailor their parenting strategies to the individual characteristics of their children.

***Learning Objectives*:**

1. To teach parents to utilize child management strategies which have proven effective. This is accomplished by employing techniques that reinforce children's appropriate behavioral responses to environmental stimuli.

2. To teach parents to identify the nature of their children's individual temperamental reactions to life events and to adjust their expectations and style of responding so that children respond optimally to their parents' attempts to manage their behavior.

3. To help parents recognize and understand the role that emotions play in their lives. Parents will also learn to identify their feelings about emotions (i.e., their own philosophy about emotions), strategies used to regulate their own emotions, and how emotions are expressed in their homes.

4. To teach parents effective strategies for dealing with their own and their child's emotions.

5. To assist parents in teaching their children how to deal with conflict and solve problems.

6. To train parents to take advantage of opportunities to teach their children how to recognize and label their emotions. Parents will also learn how to validate their children's emotions in a manner that encourages them to express their emotions appropriately.

Learning Objectives: Module 1 – Managing Behavior

- Discussing causes of children's problem behavior and monitoring techniques
- Communicating effectively and using positive discipline strategies
- Enhancing positive parent-child relationships
- Learning to be an "authoritative parent"

Causes of Child Behavior Problems
- Genetic make-up
- The family environment
- Accidental rewards
- How instructions are given
- Ineffective use of punishment
- Parents' beliefs and expectations
- Outside influences
    - Peers and friends
    - School
    - Media and technology

Observing and Recording Behavior
- Monitoring behavior helps you see
    - patterns in behavior
    - how consistently you react
    - when the behavior occurs
    - whether the behavior is changing
    - whether you have reached your goals
- Tracking behavior helps determine:
    - Nature – Behavior Diary
    - Frequency – Behavior Diary or Tally Sheet
    - Intensity – Behavior Diary
    - Duration – Behavior Diary or Duration Record

Effective Communication
- Giving Instructions
    - Get close (i.e., within arms length)
    - Make eye contact
    - Use the child's name
    - Use a calm voice and a firm, direct, non-argumentative tone
    - Tell the child what TO DO instead of what not to do
    - Give your child a chance to comply
    - Be sure to praise your child when s/he complies
    - Give a two-choices statement for noncompliance

Effective Discipline – Time Out
- Keeps child safe until they have been quiet for a short time
- Teaches children self-control
- Requires parent to remain calm
- Effective with children up to 10 years of age

- Steps in Time Out
    - Explain the misbehavior
    - Walk child through the time out routine
    - Seat in a safe place
    - Explain the amount of time the child is to remain in time out
        - 3-5 year olds – 2 minutes
        - 5-10 year olds – up to 5 minutes
    - Do NOT talk to or look at your child during the time out
    - When the time out is over, repeat your first instruction
    - Praise compliance

- Alternatives to Time Out for Older Children:
    - Grounding
    - Removal of privileges
    - Five-minute work chore

- When the Child Won't Stay in Time Out
    - Stay calm and return the child to the time out spot
    - Remember
        - the child must be quiet in order to get up
        - the time out does not end until the child follows the original instruction

Effective Discipline – Planned Ignoring
- Do NOT give any attention to the child during misbehavior
    - Do not look at or talk to
    - Turn and walk away if safe to do so
- Be prepared for escalation
- Remain calm
- Praise good behavior

Effective Discipline – Descriptive Praise
- Describe the behavior you like
- Be clear and specific
- Be enthusiastic and sincere

Escalation
- Behavior will initially get worse in an attempt to achieve expected results

- Don't waver and be consistent
- Once the child realizes that you are 100% committed to the discipline, the behavior will eventually improve

Consistency
- Consequences must be enforced for each instance of misbehavior
- Techniques will not work if not employed consistently
- Children will test limits in all situations
- Back up your words with actions
- Remain consistent even when behavior is improving
- Never threaten a consequence you're not prepared to enforce

Behavior Charts
- Track progress
- Don't expect immediate compliance
- Start small to ensure success
- Pick something you're reasonably sure your child can do
- Gradually move on to more problematic behaviors
- Discuss rewards with children
  - Must be something motivating
  - Does not need to be monetary
- Be consistent
- If you promise a reward, be sure to follow through
  - KEEP YOUR WORD

Quality Time
- Give your full attention
- Allow your child to lead the play
- Don't ask questions or criticize
- Interact in a warm and positive manner

Teaching Time
- Helping your child find answers for him/herself
- Promotes*:*
  - Language development
  - Independent play
  - General knowledge
  - Problem solving skills

- Keep it fun and enjoyable
- Look for teachable moments throughout the day

I Messages
  - Parent can say how s/he feels without blaming or labeling the child
  - Allow child to hear message because it is expressed in a non-threatening way
  - Conveys consequence of behavior
  - Emphasizes parents feelings, not child's personality
  - Influences child to change behavior
  - How to Give an I Message
    - Name the behavior or situation ("When you _____…")
    - Say specifically how you feel about the effect of the situation on you ("I feel _____…")
    - State your reason ("Because…")
    - Say what you want done ("I want…")

Authoritative Parenting
  - Balances between warmth and control
    - Warmth = high in acceptance and involvement
    - Control = making and consistently reinforcing reasonable demands
  - Promotes internalization of values and ability to regulate behavior
  - Allows child to be involved in decision-making
  - Encourages child to express thoughts, feelings, and desires
  - Skills
    - Provide reasons for demands
    - Use appropriate disciplinary techniques as teaching moments

  - Child Outcomes
    - Upbeat mood
    - Self-control
    - Task persistence
    - Cooperativeness (early childhood)
    - Responsiveness to parental views (adolescence)
    - High self-esteem
    - Social maturity
    - Achievement motivation
    - School performance

  - Why authoritative parenting works
    - Control is not arbitrary
    - Parents model caring concern and self-control
    - Demands made and autonomy granted fit with children's developmental level (ability to take responsibility) and helps children view themselves as competent
    - Protects children from the negative effects of family stress and poverty

Learning Objectives: Module 2 – Managing Emotions

- Identifying your child's temperament and the best parenting for your child
- Managing your stress and emotions
- Managing your child's emotions
- Developing an emotion philosophy

What is Temperament?
- Biologically based patterns of behavior.
- Easy, difficult, slow-to-warm-up
- Reactivity and Regulation
    o Emotionality (positive and negative – fear,anger, and sadness)
    o Effortful Control (attention and behavioral control)
- Extraversion/Introversion

Determining child's temperament type?
- Type 1 – Emotional and Shy
- Type 2 – Emotional and Social
- Type 3 – Easy Going and Shy
- Type 4 – Easy Going and Social

How should parenting differ based on children's temperament?
- Type 1 - Emotional and Shy
    o Discipline is usually easy and should not be overly emotional or it may be ineffective.
    o It is important to encourage labeling emotions and ways to handle stressful situation.
    o Avoid being overprotective and controlling.
    o Role play social situations and be responsive to your child's emotional cues.
    o Children high in this type of temperament are at risk for anxiety problems.

- Type 2 - Emotional and Social
    o Discipline should not be overly emotional or it may be ineffective.
    o Taking away social privileges (grounding from social events) is a good discipline strategy.
    o It is important to help these children develop strategies to cope with their emotions – role playing works well.
    o Children high in this type of temperament may have difficulty regulating emotions like anger.

- Type 3 – Easy Going and Shy
    o Pair discipline with mild emotion (hot cognition) to make children care about indiscretions.
    o Encourage them to be more social – they often find that it is "not as bad as they thought."

- o Encourage empathy and perspective taking to increase emotional awareness in others.
  - o Encourage labeling and discussing emotions so that children become more emotionally aware and expressive.
  - o Children high in this type of temperament are at risk for social withdrawal.

- Type 4 – Easy Going and Social
  - o Pair discipline with mild emotion (hot cognition) to make children care about indiscretions – these kids are so laid back!
  - o Taking away social privileges (grounding from social events) is a good discipline strategy.
  - o Encourage empathy and perspective taking to increase emotional awareness in others.
  - o Encourage labeling and discussing emotions so that children become more emotionally aware and expressive.
  - o At high levels of this temperament type children are at risk for thrill-seeking and antisocial behavior.

Basic emotions:
- Happiness
- Interest
- Surprise
- Fear
- Anger
- Sadness
- Disgust

Becoming Aware of Emotions
- What emotions does your child display most?
- Your child's emotional profile
- How does that relate to your emotional profile?
- How can you and your child become more aware of emotions – the first step in managing them!

Stress Inventory
- Link between stress and susceptibility to illness
- Relationship between recent life changes (exposure to stressors) and future illness
  - o Approximately 1 year to replenish the energy expended in adjusting to any stressor.

What is stress?
- Stress is a demand or challenge made upon the adaptive capacities of the mind and body.
- Can be positive or negative.
- What matters:
  - o The number of stressful events
  - o Your reaction to the event

- o The duration of an event
  - Social support and buffers can help!

What causes stress?
- Too much to do
- Expectations too high
- How you think about things

How does stress affect parenting?
- When stressed, less likely to be calm and consistent
- May see ordinary child behavior as bad/accidents as done on purpose
- Sometimes too tired to praise, reward, or spend time with our children.

General Stress Management
- Relax (minibreaks, breathe, relax your muscles)
  - o Have quiet time for yourself
  - o Make time to do at least one thing you enjoy doing by yourself
  - o Notice tension
- Be optimistic but practice acceptance (accept what you cannot change)
- Get organized
  - o Reduce time urgency
  - o Manage your time (PLAN!)
- Maintain a healthy lifestyle
  - o Exercise
  - o Watch your Habits (eat sensibly and avoid nonprescription drugs)
- Talk to friends
- Practice visualization
- Develop a coping plan
  - o Consider lifestyle changes
  - o Engage in positive self-talk (I often succeed; I'm an amazingly capable person; I can make things happen; I am in control)
  - o Develop coping statements
  - o Catch unhelpful thoughts
- Reduce demands – say NO!

Emotions versus Stress
- Emotions differ from stress in that emotions are one piece of experiencing stress The experience of stress and emotions are both physiological states
- Emotions tend to be more specific, concrete, and linked to an experience that can be pinpointed
- Stress is more constant

Emotion Regulation Strategies
- Behavioral – Distraction, Problem Solving
- Cognitive – Reframing, Accepting
- Physical – Playing a sport, going for a walk

- Social/Interpersonal – physical comfort, talking with someone, touch

Negative Reactions to Emotions
- Distress Reactions – parents experience distress when children express negative emotions
- Punitive Reactions – parents punish children for expressing emotions (sending kids to room; taking away privileges)
- Minimization Reactions – parents minimize the seriousness of the situation or devalue the child's problem or distressful reaction

Positive Reactions to Emotions
- Expressive Encouragement – parents encourage their children to express feelings and validate emotional states (it's okay to feel sad)
- Emotion Focused Reaction– parents respond with strategies to help kids feel better (soothe/comfort; do something fun to make the child feel better; distraction)
- Problem Focused Reaction – parents help the child solve the problem that caused the distress (brainstorm ways to fix the problem)

An Emotion Coach
- Is aware of emotions in themselves and others
- Views children's negative emotions as an opportunity for intimacy or teaching
- Validates their children's emotions
- Assists the child in verbally labeling emotions
- Problem solves with the child, setting behavioral limits and discussing goals and strategies for dealing with the situation that led to the negative emotion

Steps of Emotion Coaching
- Identify what caused the problem with the child and acknowledge your child is upset and that you understand why
- Help your child label the felt emotion(s). If the child cannot label the emotion, label the emotion for the child and check in to be sure you are correct
- Help your child problem solve by:
  - Behavioral limits – discuss display rules and what appropriate emotional expression should be
  - Strategies – discuss strategies to solve the current problem and ways to avoid the problem or manage it in the future

Learning Objectives: Module 3 – Summary and Wrap-Up

Behavior Management Review
- Watch Triple P video
- Positive Discipline Techniques
  - Time Out
  - Ignoring
- Fostering a Positive Parent-Child Relationship
  - Labeled praise
  - Quality time
- Using "I Statements"

Emotion Management Review
- Positive Reactions to Emotions
- Negative Reactions to Emotions
- Emotion Coaching

Developing a Parenting Plan

Appendix B.
Description of Pilot Program

 A pilot study was conducted differed in terms of format, but not in content. Parents participated in an eight-week program which met weekly for two hours. Parents learned the same behavioral techniques and received information on child temperament and emotion regulation, however more time was available for discussions, questions, and role playing. Due to difficulties encountered with recruitment and attrition, the format of the program was modified and resulted in the development of the current, abbreviated format. Simple analyses were conducted in order to assess mean differences in parenting, temperament, and behavior.

 Participants included mothers of five preschool-age children. Parents' ages ranged from 32-45 years, with a mean of 37.60 years. Parents had attended at least some college and were employed in professional capacity. Parents who expressed interest in the Parent Education Center at the University of New Orleans were recruited in order to assist them in managing difficult behavior in their children.

 Although the measures administered remained the same, parents completed questionnaires at week 1 to obtain baseline measurements of parenting, temperament, and children's behavior, at week 4 following completion of the behavioral component of the program, and at week 8 following the emotion component. Parents paid a $30.00 registration fee prior to beginning the program.

 A cursory examination of mean differences demonstrated results consistent with the current study. Specifically for the temperament variables, children's levels of effortful control increased while their levels of negative affectivity decreased. With regard to parenting, positive practices, structure and efficacy tended to increase over time. Negative practices decreased, along with parental hostility. However, contrary to hypothesized expectations, parental warmth

also decreased over time. Another inconsistent result emerged with regard to children's problem behavior. While both internalizing and externalizing behavior decreased initially (i.e., from time 1 to time 2), these levels increased subsequently from time 2 to time 3.

Correlational analyses revealed a significant negative relationship between effortful control and parental efficacy at time 1 (r = -.88, p = .05). This relationship was not significant at any other time point. Due to missing data, no significant correlations emerged at time 2. Upon examination of notable relationships at time 3, only negative affectivity was significantly negatively related to positive practices (r = -.90, p < .05). However, this relationship approached significance across time (i.e., time 1 to time 3; r = -.81, p < .10).

Paired samples t-tests were conducted in order to evaluate significant mean differences across time. Importantly, children's levels of negative affectivity decreased from time 1 to time 3, but did not reach significant levels (t = -2.21, p < .10). However, negative practices decreased significantly from time 1 to time 2 (t = -4.77, p < .05). An unexpected finding emerged whereby children's reported externalizing behavior increased significantly from time 2 to time 3 (t = 4.23, p < .05). Due to sample size limitations, sufficient power was not achieved in order to run further analyses that might reveal desired program effects.

Anecdotally, parents reported great satisfaction with the content of the program. Parents reported use of more positive practices and resulting observable changes in their children's behavior. Moreover, children were seen as less negative and better able to regulate their emotions. Parents found the emotion component of the program particularly in helping them to identify their feelings about emotions and emotion regulation, as well as to recognize their role in socializing their children's behavior and emotions by their own example.

Appendix C. Approval for the Use of Human Subjects

UNIVERSITY OF NEW ORLEANS
COMMITTEE ON THE USE OF HUMAN SUBJECTS

Form Number: <u>4AUG03</u> *(please refer to this **number in allfuture** correspondence concerning this **protocol**)*

Principal Investigator: <u>Angela Walter</u> <u>Keyes, MS</u>   Title:<u>Graduate Student</u>

Department: <u>Psychology</u>   College: <u>Science</u>

Name of Faculty Supervisor: <u>Amanda Sheffield Morris. Ph.D.</u>   ***(if P1** is a **student)***

Project Title: <u>Positive Parenting Proiect</u>   Date Reviewed: <u>July</u> <u>23, 2003</u>

Dates of Proposed Project Period: <u>From 8/03 to 8/04</u>
*approval is for one year from approval date only and may be renewed yearly.

<u>Note:</u>Consent forms and related materials are to be kept by the PT for a period of three years following the completion of the study.

☐ Full Committee Approval

■ Expedited Approval

☐ Continuation

☐ Rejected

☐ The protocol will be approved following receipt of satisfactory response(s) to the following question(s) within 15 days:

_____
_____
_____

Committee Signatures:

_____   Scott C. Bauer. Ph.D. (Chair)

_____   Gary Granata, Ph.D.

_____Betty Lo, M.D.

_____Hae-Seong Park, Ph.D.

_____Jane Prudhormne

_____Jayaraman Rao, M.D. (NBDL protocols only)

123

_____Richard B. Speaker, Ph.D.

_____Gary Talarchek, Ph.D

Vita

Angela Walter Keyes was born in New Orleans, Louisiana. She is married and has two sons. She received a Bachelor of Science degree in Psychology from Xavier University of Louisiana in 1993, with a minor in Elementary Education, and a Master of Science degree from the University of New Orleans in Applied Developmental Psychology in 2002. She previously worked for the LSU Medical School in the Department of Psychiatry, Section of Psychology as a Research Associate. She is presently a fifth year graduate student in the Applied Developmental Psychology Program at the University of New Orleans and is employed as a Developmental Specialist with the Tulane University/Jefferson Parish Human Services Authority Infant Team, working with children in foster care and their families. Her current research focuses on conducting behavioral family interventions which are developmentally appropriate and sensitive to individual differences in children, as these factors may affect successful implementation of these programs. Additional research involves investigating the role that emotions and regulation of affect play in the effective socialization of children's behavior.