

**Developing More Ways for Children to Share
Their Perceptions of Parenting Behaviors**

by

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Abstract

The primary purpose of this study was to modify an existing parent report measure on perceptions of parenting behaviors for use with children, as well as examine the relationships among child perceptions of parenting behaviors, their life stress experiences, and their use of coping strategies. The participants for this study were 63 children between the ages of 8 and 12 years who were recruited from daycare centers and a local organization for families.

The psychometric properties of the newly modified child report measure of parenting behaviors (the Parenting Scale – Child; PS-Child), including internal consistency and test-retest reliability, were found to vary from low to adequate overall. Furthermore, the PS-Child Total Score and Over-Reactivity Subscale were found to significantly correlate with an existing child report measure of parenting behaviors (the Parent Perception Inventory). Additionally, relationships between child perceptions of parenting behaviors and child stress were evaluated. Results indicated that child reports of greater stress corresponded to greater reports of negative parenting behaviors. Finally, specific types of child reported coping strategies were found to indirectly influence the relationship between child stress and child perceptions of parenting behavior.

Further modifications and psychometric considerations are discussed regarding the PS-Child. Additionally, the importance of gathering information from children on parenting behaviors or a variety of other topics is highlighted, including examining similarities or differences between child perceptions and others' perceptions.

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Introduction

In the realm of social psychological research, attribution and person perception toward the self and others has been widely studied over the years (e.g., Heider, 1958; Jones & Davis, 1965; Jones et al., 1972; Kelley, 1967; Trope & Gaunt, 2007). How people perceive themselves and others can depend on a variety of factors, such as the type of behavior being evaluated (e.g., positive or negative), characteristics related to the person being evaluated (e.g., familiarity or personal salience), and characteristics related to the perceiver (e.g., child vs. adult) (for a more extensive review of these factors, the reader is referred to Troupe & Gaunt, 2007).

In particular, researchers evaluating how attributions and perceptions of behaviors are processed across various perceivers have found interesting differences between adults and children following a developmental trend (e.g., Ferguson, van Roozendaal, & Rule, 1986; Josephson, 1977; Rholes, Newman, & Ruble, 1990; Rholes & Ruble, 1984; Ruble, Feldman, Higgins, & Karlovac, 1979). For instance, children's perception of behavior changes from focusing more on situational factors (e.g., external to a person) in early and middle childhood to focusing more on dispositional factors (e.g., internal to a person) in older children. In adolescence and young adults, an interactionist perspective is reached in which both situational and dispositional factors are taken into account. In contrast, older adults tend to utilize dispositional attributes when describing behavior.

This trend of increased emphasis on dispositional factors is not surprising if one examines the research that has focused on typical developmental trends across children and adolescents in how they perceive their own behaviors (Damon & Hart, 1988; Harter, 1996). For

example, younger children typically mention concrete behaviors, preferences, and possessions when characterizing themselves (Damon & Hart, 1988; Harter, 1996), most of which are observable to others. In contrast to younger children, older children and adolescents begin to describe personality attributes about themselves using trait labels (Harter, 1996). These older children and adolescents are able to provide a more balanced self-representation of their abilities and deficiencies by being able to integrate both dispositional and situational concepts about themselves (Fischer, 1980).

In addition to the developmental differences that exist between child and adult perceptions of dispositional and situational factors, further research has evaluated other potential differences between child and adult perceptions across a variety of factors. One popular research area compares child and parent perceptions of their own behaviors, as well as their perceptions of other's behaviors, which is discussed next.

Child and Parent Perceptions of Their Own and Others' Behavior

Relying on children to provide information about a variety of topics, such as reporting on their own behavior or their parents' behaviors, can be clinically useful. Child self-reports can be especially helpful in obtaining information regarding a child's subjective experiences, such as their beliefs, perceptions, attitudes, reasoning abilities, and emotional affects (Hughes & Baker, 1990). Several research studies have also compared child reports with other informant reports (i.e., parents, teachers, etc.) regarding a child's behavior (e.g., Achenbach, McConaughy, & Howell, 1987; Edelbrock, Costello, Dulcan, Conover, & Kala, 1986; Greenbaum, Dedrick, Prange, & Friedman, 1994; Kolko & Kazdin, 1993; Martin, Ford, Dyer-Friedman, Tang, & Huffman, 2004; Phares, Compas, & Howell, 1989; Pierce & Klein, 1981; Rowe & Kendal, 1997). Among all these studies, it was found that there were low concordance rates and few

similarities between child reports and other informant reports (e.g., parents, teachers, etc.) regarding the child's behavior, indicating that children and others seem to perceive a child's behavior differently. These findings have important clinical implications, since treatment targeting a child's problem behavior is often based on other informants' perceptions of the problem, such as those reported by the child's parents or teachers. According to these results, it may be important to assess the child's perception of their own problem behaviors and determine subsequent treatment planning along these lines, particularly if children endorse more problems than are reported by others (e.g., Martin et al., 2004).

In contrast to reports specifically focusing on child behavior, reports regarding parenting behaviors have also been examined over the years. Research on child reports of parental behaviors and specific parental discipline styles seemed to flourish during the 1950s and 1960s (e.g., Ausubel, Balthazar, Rosenthal, Blackman, Schpoont, & Welkowitz, 1954; Baumrind, 1966, 1967; Goldin, 1969; Kagan, 1956; Schaefer, 1965; Siegelman, 1965), and a literature review from that time (Goldin, 1969) commented primarily on the work of Schaefer (1965) and Siegelman (1965), in particular, for their extensive work in developing child perception report measures that assessed various dimensions of parenting behavior. Many parenting behavior practices focus on factors related to the amount of support, control, and structure provided by parents to children and have been found to influence children's overall development and behavior (e.g., Baumrind, 1966; Grant, Compas, Stuhlmacher, Thurm, McMahon, & Halpert, 2003; Hardy, Power, & Jaedicke, 1993; Power, 2004). Furthermore, identifying parental discipline styles and teaching more effective parental discipline behaviors in response to child behavior has prompted the development and use of several parenting programs in clinical practice over the years (e.g., Barkley, 1987; Eyberg & Robinson, 1982; Frick & McCoy, 2001;

Hembree-Kigin & McNeil, 1995; Pisterman, McGrath, Firestone, Goodman, Webster, & Mallory, 1989; Silverthorn, 2001; Webster-Stratton, 1984, 1994; Webster-Stratton & Hammond, 1997).

As indicated above, previous research comparing child and parent/other reports has found that often there are significant discrepancies between child perceptions and their parents' or others' perceptions on topics regarding child or parenting behavior (e.g., Achenbach et al., 1987; Bögels & van Melick, 2004; DiBartolo & Grills, 2006; Edelbrock et al., 1986; Greenbaum et al., 1994; Hart & Lahey, 1999; Kolko & Kazdin, 1993; Martin et al., 2004; Phares et al., 1989; Pierce & Klein, 1982; Rowe & Kendal, 1997; Sessa, Avenevoli, Steinberg, & Morris, 2001). For example, some research on perceptions of parenting behaviors have found that parents tend to be less critical and overly positive of their parenting behaviors when compared to reports given by their children and their partners (Bögels & van Melick, 2004). Perhaps this finding could be explained with reference to a person's motives for enhancing the self in an overly positive light, such that people tend to perceive their own attributes as more positive and gratifying, a concept labeled as the above-average effect or the "better than myself effect" (e.g., Alicke, Vredenburg, Hiatt, & Govorum, 2001). This positive self-biased effect of attributes is also observed among children, particularly younger children, in that they only typically describe positive attributes related to themselves (Harter & Pike, 1984), as well as provide an overestimation of their abilities (Stipek, 1981). Overall, the results from this research show the importance of using multiple informants (e.g., parents, children, teachers) when gathering clinical information to help uncover potential sources of bias in self-reporting.

Another explanation for the differences found between parent and child perceptions suggests that perhaps parents and children simply perceive and interpret the same experiences,

events, and questions differently (Gaylord, Kitzmann, & Coleman, 2003; Shahinfar et al., 2000; Tein et al., 1994; Thompson, Goodvin, & Meyer, 2006). Thus, when obtaining information about child and/or parenting behaviors, it would be important to consider utilizing multiple informants (such as both the child and parent) in order to develop a more informative and comprehensive overall report (LaGreca, 1990; McConaughy, 2005; Sattler & Hoge, 2006). However, difficulties in obtaining multiple informant reports particularly with regards to perceptions of parenting behaviors are apparent when there are few existing child report measures of parenting behavior (e.g., Ausubel et al., 1954; Goldin, 1969; Hazzard, Christensen, & Margolin, 1983; Kagan, 1956; Schaefer, 1965; Siegelman, 1965) and also few parent report measures that assess parents' perceptions of their own parenting behaviors (i.e., Arnold, O'Leary, Wolff, & Acker, 1993; Chaffin et al., 2004; Hazzard et al., 1983; Meunier & Roskam, 2007, 2009). To address some of these limitations, the current study attempted to modify an existing parent report measure to account for child developmental considerations and use this modified measure to evaluate the *child's* perception of his or her parents' behaviors.

Why Use Child Reports of Parenting Behaviors?

The importance of evaluating parenting behaviors, such as specific parental discipline styles, from the specific perspective of a child can provide many important implications for understanding overall family functioning. For instance, with the popular use of parenting programs to address a variety of child, parent, or family problems (e.g., Barkley, 1987; Eyberg, Nelson, & Boggs, 2008; Brinkmeyer & Eyberg, 2003; Frick & McCoy, 2001; Hembree-Kigin & McNeil, 1995; Pisterman et al., 1989; Silverthorn, 2001; Webster-Stratton, 1984, 1994; Webster-Stratton & Hammond, 1997), it could be informative to evaluate whether children can perceive changes in their parents' behavior following their parents' participation in a treatment program.

This type of research can be utilized clinically in assessing the effectiveness of programs and other interventions based on children's perceptions of change before and after completing the programs or other interventions. In developing these types of treatment outcome measures for use with children, items can be based on specific components of the treatment or intervention utilized. As an example, one specific parenting program to consider when creating a child measure of treatment outcome would be Parent-Child Interaction Therapy (PCIT; Brinkmeyer & Eyberg, 2003; Hembree-Kigin & McNeil, 1995). The goals of PCIT involve strengthening the parent-child relationship by encouraging the parents to use specific communication skills (e.g., verbally acknowledging child activities, giving praise, reflecting child statements, avoiding criticisms, etc.), as well as teaching them more effective behavior management skills (e.g., appropriate use of commands, utilizing a specific time-out procedure, etc.). Thus, these specific components related to PCIT would most likely be some of the aspects considered when developing the items to be included in a child report measure of treatment outcome. The development of a child report measure to be used in conjunction with PCIT would be a valuable contribution because no PCIT-specific child report measures are currently available (i.e., only parent, teacher, and clinician report measures are utilized). With the use of a child report measure, a possible research question to pursue in the near future could be to evaluate whether children perceive changes in themselves or their parents' behaviors after receiving PCIT.

Another potential implication in which child report measures of parenting behaviors could be helpful is within the area of child maltreatment. For instance, information could be gathered on how children who are suspected victims of child abuse from their parents, or others, perceive this abuse. Previous research has shown that children who have been maltreated tend to under-report violence or the extent to which they were victimized (Kruttschnitt & Dornfeld,

1992; Shahinfar et al., 2000). Thus, it would be valuable to compare perceptions of parenting behaviors from children who have been maltreated versus from children who have not been maltreated. Furthermore, since perceptions of child maltreatment and family violence have been found to differ among informants (e.g., Kaufman, Jones, Stieglitz, & Vitulano, 1994; Sternberg, Lamb, & Dawud-Noursi, 1998), child reports of abusive behaviors can be compared to parents' or others' perceptions of their parenting behaviors toward their child. Previous research has found that parents may actually report using more negative behaviors than is reported by their child, particularly if they feel that these parenting practices are appropriate or the only way to effectively discipline their child (Kolko, 2002; Tein, Roosa, & Michaels, 1994). Research utilizing behavioral observations also has shown that abusive parents demonstrate more emotionally controlling and less supportive behaviors toward their children than parents who are not abusive (e.g., Bousha & Twentyman, 1984; Lau, Valeri, McCarty, & Weisz, 2006; Mash, Johnston, & Kovitz, 1983). Additionally, with regard to perceptions of child behaviors, abusive parents have been found to report more emotional or behavior problems in their children than is reported by the child on his or her own behavior or by what is demonstrated in actual behavioral observations of the child (e.g., Kinard, 1998; Lau et al., 2006; Reid, Kavanagh, & Baldwin, 1987). Thus, it would be worthwhile to evaluate whether perceptions of both parenting and child behaviors reported by abused children and their parents corroborate or contradict this past research.

As has been argued and demonstrated from the review of research above, gathering information specifically from children on perceptions of parenting behaviors can lead to many important implications. Furthermore, whether evaluating perceptions of behavior from children, parents, or both, it may additionally be important to consider how these perceptions may be

influenced by other factors. For example, stress experienced by children and parents has been extensively found to influence outcomes related to child behavior problems, parental discipline behaviors, and both child and parent psychosocial functioning (e.g., Abidin, 1992; Anthony, Anthony, Glanville, Naiman, Waanders, & Shaffer, 2005; Deater-Deckard, 2004; Goodyer, Wright, & Altham, 1990; Hammen & Rudolph, 2003; Huths-Bocks & Hughes, 2008; Mullins, Siegel, & Hodges, 1985). Thus, examining the role of stress and subsequent coping strategies appears to be a significant domain to emphasize and discuss in relation to perceptions of behavior.

Child Perceptions of Stress and Ways of Coping

Numerous research studies have been conducted on stress, coping, and adjustment, particularly with children and families who experience chronic illnesses (Boekaerts & Roder, 1998). More psychological problems and experiences of stress are seen in children with chronic illness, particularly internalizing behavior problems such as depression, somatic complaints, social withdrawal, and high anxiety (Furrow, Hambley, & Brazil, 1989; Hamlett, Pellegrini, & Katz, 1992; MacLean, Perrin, Gortmaker, & Pierre, 1992). In reaction to these problems and experiences of stress in children with chronic illnesses, researchers have examined how coping might act to mediate a child's stress and adjustment to a chronic disease. In particular, they have suggested that it is how the child decides to cope with his/her illness that can either increase or decrease the possibility of developing later psychological problems (Brotman Band, 1990; Ebata & Moos, 1991; Grey, Cameron, & Thurber, 1991; Hanson, Cigrang, Harris, Carle, Relyea, & Burghen, 1989; Reid, Dubow, & Carey, 1995; Weist, Finney, Barnard, Davis, & Ollendick, 1993). Thus, specific coping strategies used by chronically ill children when dealing with stress

have been widely studied over the years (e.g., Eiser, 1990; Olson, Johansen, Powers, & Pope, 1994; Wallander, Varni, Babani, Tweddle Banis, & Thompson Wilcox, 1989).

In addition to the research focused solely on stress in children with chronic illnesses, more general research has shown that stress experienced by any child can influence his/her perceptions and psychosocial functioning (e.g., Goodyer et al., 1990; Mullins et al., 1985), as well as have an effect on subsequent parenting behavior toward the child. For instance, children who are stressed or display other dysfunctional behavior may evoke negative responses from their parents (e.g., Hammen, Burge, & Stansbury, 1998; Messer & Gross, 1995; Patterson, 1982). Thus, child stress can lead to perceptions of a negative family environment. Furthermore, parenting behavior practices focusing on factors related to the amount of support, control, structure, and quality of the parent-child relationship have been found to influence children's adjustment to stress and their use of coping strategies (Grant et al., 2003; Hardy et al., 1993; Power, 2004). Therefore, child stress appears to relate to perceptions of negative parenting or family behavior and their subsequent responses to coping with stressful experiences (see Figure 1).

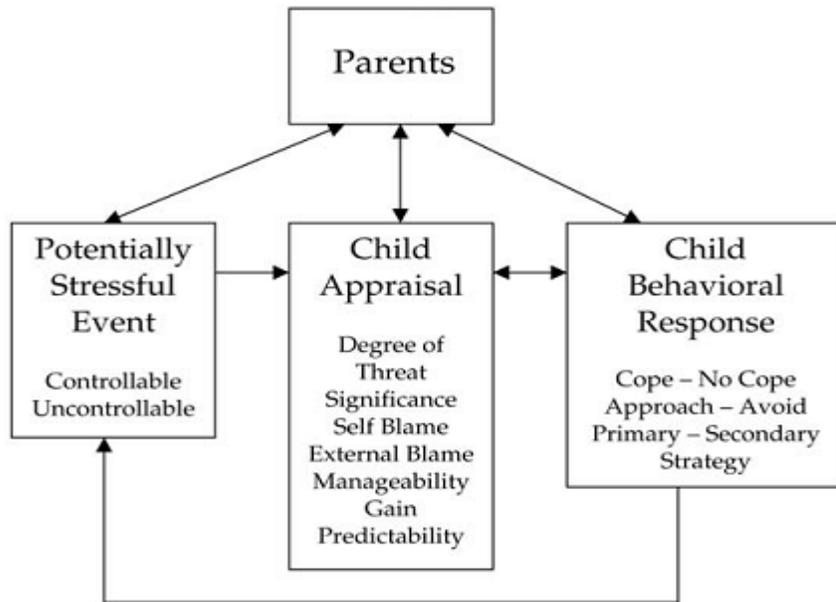


Figure 1. Possible Pathways Influencing Stress and Coping in Children (referenced from Power, 2004).

Research has demonstrated that children often utilize a variety of coping strategies when responding to stress (Forsythe & Compas, 1987; Frydenberg & Lewis, 1994), which may depend on the particular situation or problem (Band & Weisz, 1988; Compas, Malcarne, & Fondacaro, 1988; Vierhaus, Lohaus, & Ball, 2007), as well as individual differences in coping styles. Furthermore, research has found that there is a typical age and developmental trend in the amount and types of coping strategies utilized in children, such that more coping strategies become available and are used more frequently in older children than compared to younger children (Compas, Banez, Malcarne, & Worsham, 1991; Vierhaus et al., 2007). Additionally, the specific types of coping that children utilize have been found to affect the impact of stress a child experiences and their consequent psychological functioning (e.g., Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001). Previous research has also suggested that child coping mediates the relationship between parenting behaviors and a child’s overall adjustment

and functioning (e.g., Eisenberg et al., 2001, 2003; Smith et al., 2006). Thus, a variety of child coping patterns have been extensively researched and typically include aspects of active or problem-solving coping, support-seeking coping, avoidance coping, and distraction coping (e.g., Ayers, Sandler, West, & Roosa, 1996; Sandler, Tein, & West, 1994; Skinner, Edge, Altman, & Sherwood, 2003), which can become useful to identify when providing clinical services to these children (Donaldson, Prinstein, Danovsky, & Spirito, 2000). Specifically, active or problem-solving coping includes strategies related to cognitive decision making, direct problem-solving, seeking understanding, and positive and optimistic thinking when dealing with stress or problems. Support-seeking coping involves looking to family, friends, or others for help in taking action and dealing with feelings related to stress or problems. In using avoidance coping, actions are taken as an attempt to repress or avoid thinking about stress or problems, as well as engaging in wishful thinking. Finally, distraction coping includes engaging in alternative actions or activities that help to physically release emotions but are not directly related to the stress or problems.

Comparisons between child and parent perceptions of their use of coping strategies in response to stressful experiences have also been examined (Bagdi & Pfister, 2006). In particular, this research has found that both children and parents seem to perceive less stressful events as similar, as well as use many of the same coping strategies. However, more differences appear to exist between children and parents with regard to reporting feelings of stress and perceived utilization of coping mechanisms in response to certain stressors. For example, children were found to report experiencing more stress than their parents perceived. In addition, children and parents had different perceptions regarding what they considered to be major stressful experiences. Moreover, although children and parents reported using similar coping strategies,

they often differed in their reports of when they would use specific coping strategies across different situations and problems. Similar findings when comparing child and parent perceptions of coping were reported in another recent study (e.g., Smith et al., 2006). Thus, the findings from these comparisons between child and parent perceptions of stress and coping prompt the need to evaluate child perceptions of stress and coping strategies separately from parent perceptions in order to further examine other similarities and unique differences.

Goals and Hypotheses of Study

One of the primary goals of the current study was to modify an existing parent report measure of parenting discipline behavior (i.e., the Parenting Scale) for use as a child report measure of parenting behaviors in order to address the limited methods for evaluating child perceptions of their parents' behaviors, particularly as this information would be useful to gather in research, clinical, and other relevant domains (e.g., child maltreatment).

When modifying, creating, or utilizing measures, it has been strongly encouraged and often deemed essential to examine and report the psychometric properties of the measures (e.g., reliability and validity) so that one can determine the accuracy of the measure and subsequently inform what interpretations can be made from the information gathered (Wilkinson & APA Task Force on Statistical Inference, 1999). In general, reliability entails evaluating the consistency or stability of a measure across time, raters, settings, and items (Kazdin, 2003). Several measures of reliability can be examined, such as internal consistency and test-retest reliability (Bagner, Harwood, & Eyberg, 2006; Flanery, 1990; Kazdin, 2003). Internal consistency evaluates the consistency and homogeneity among the items of a measure. For instance, items from a unidimensional measure that are supposed to assess the same unitary construct would be expected to produce adequate internal consistency for the overall measure. Similarly, items that

are supposed to assess a similar construct or comprise a particular subscale within a multi-dimensional measure would be expected to produce adequate internal consistency for the specific subscales. In contrast, if items that are supposed to assess different constructs are compared to each other, they would be expected to result in a higher degree of heterogeneity and therefore should lead to lower internal consistency estimates.

Test-retest reliability evaluates how consistent the measure is over time (Kazdin, 2003). This type of reliability can vary according to what specific measure factors are being evaluated, as some factors should be found to be stable over time (e.g., traits), while others should change due to developmental processes taking place over time or due to being exposed to a particular type of treatment intervention (e.g., pre-post treatment outcome studies). One consideration to be aware of with regard to test-retest reliability is the amount of time between initial reporting and re-reporting on the same measure, with longer intervals generally resulting in less stable and less reliable outcomes. Additionally, other factors such as fatigue, memory processes, changes or errors in testing administrations or conditions, and developmental changes over time can reduce stable and reliable outcomes (Flanery, 1990).

Several suggestions have been made over the years as to what are considered acceptable reliability coefficient estimates and specifically internal consistency estimates. In general, reliability coefficient estimates around .70 are considered acceptable (e.g., Anastasi & Urbina, 1997; Loewenthal, 2001), with some researchers suggesting higher acceptable estimates around .80 (e.g., Carmines & Zeller, 1979; Taub, 1994). Similar variations exist among researchers for specific estimates of internal consistency, with suggested adequate to good internal consistency estimates ranging from alphas of .60 to as high as .90 (e.g., Anastasi & Urbina, 1997; Henson, 2001; Hopkins, 1998; Oosterhof, 2001).

In addition to referencing reliability, validity is also considered an important psychometric property to evaluate with regard to the accuracy of a measure. In general, validity refers to the accuracy with which a measure assesses its intended construct or domain of interest (Kazdin, 2003). The validity of a measure becomes especially important for knowing what inferences and interpretations can be made based on the information gathered from the measure. Construct validity is essentially considered the overall measure of validity, which encompasses other types of validity (Kazdin, 2003). A variety of methods can and should be used to evaluate the construct validity of a measure, such as examining criterion-related validity (see Bagner et al., 2006, and Kazdin, 2003, for more detailed information on types of validity). Criterion-related validity evaluates how well a measure can predict a person's status based on other outcome criteria, such as comparing it with other measures. There are several types of criterion-related validity one can evaluate such as concurrent, predictive, convergent, and discriminative validity. The current study focused specifically on examining a measure of convergent validity, which evaluates the relation between 2 measures given at the same time (e.g., the modified child report version of the Parenting Scale was compared to another existing child report measure of parenting behaviors).

In sum, the general consensus regarding the relationship between reliability and validity given their specific functions is that reliability is a necessary but not sufficient condition for validity (Kazdin, 2003). Thus, there can still be reliability without having validity, but in order to have validity, reliability must be present. Stated in other words, a measure can be reliable but not valid; however, if the measure is not reliable, then validity cannot be adequately obtained. In following this concept and considering the importance of reporting the psychometric properties as mentioned above, the current study hypothesized that the modified child report version of the

Parenting Scale would demonstrate adequate reliability (i.e., internal consistency and test-retest reliability) and validity (i.e., convergent validity with the Parent Perception Inventory, an existing child report measure of parenting behavior).

In addition to modifying a child report measure for parenting behavior and examining its psychometric properties, a second goal of the current study was to evaluate the possibility of a relationship existing between child stress and child perceptions of their parents' discipline behavior as suggested by the research outlined above. It was hypothesized that children who report more stress would also report that their parents use more negative parenting behaviors with them (see Figure 2).



Figure 2. Hypothesis on the Relation between Child Stress and Child Perceptions of Parenting Behaviors

A final goal of the current study was to evaluate children's coping strategies within the context of the relationship between child stress and child perceptions of parenting behaviors. Several considerations can be explored in determining what kind of influence coping strategies may have on this relationship, including possible mediation or moderation effects. The concepts of mediation and moderation along with detailed information on how to statistically determine whether variables act as mediators or moderators have been outlined in research over the years

(e.g., Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004; James & Brett, 1984; Preacher & Hayes, 2004).

Moderation is indicated when a variable alters the direction or strength of the relation between a predictor and outcome, such that an interaction occurs in which the effect of one variable depends on the level of another variable (Baron & Kenny, 1986; Frazier et al., 2004; James & Brett, 1984). Mediation is indicated when a variable explains and accounts for the relation between a predictor and outcome, such that the mediating variable is the mechanism through which the predictor influences an outcome variable (Baron & Kenny, 1986; Frazier et al., 2004; James & Brett, 1984). In general, it has been suggested that moderation be evaluated when there is a weak or inconsistent relation between a predictor and an outcome variable, while mediation be evaluated when there is already a strong relation between a predictor and an outcome variable and interest in exploring the reason behind this relation is sought. Thus, since previous research has demonstrated that a significant relationship exists between child stress and parenting behaviors (e.g., Goodyer et al., 1990; Hammen et al., 1998; Messer & Gross, 1995; Mullins et al., 1985; Patterson, 1982) and has also suggested that specific coping strategies may have a mediating effect on this relationship (e.g., Eisenberg et al., 2001, 2003; Smith et al., 2006), the current study explored mediation instead of moderation. See Figure 3 below for a diagram of mediation as referenced from Baron and Kenny (1986).

The most common and popular procedure in testing for mediation is to progress through a 4-step process, which includes formulating 3 regression equations (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004; Preacher & Hayes, 2004). The first step involves demonstrating that there is a significant relationship between a predictor and an outcome variable (e.g., path c as shown in Figure 3 below). The second step entails demonstrating that the predictor is

significantly related to the mediator variable (e.g., path *a* as shown in Figure 3 below). The third step involves demonstrating that the mediator variable is significantly related to the outcome variable (e.g., path *b* as shown in Figure 3 below). In the final step, the strength of the relationship between the predictor and outcome variable must be shown to be significantly reduced when the mediator is added to the model, such that the predictor no longer shows a significant relationship to the outcome variable.

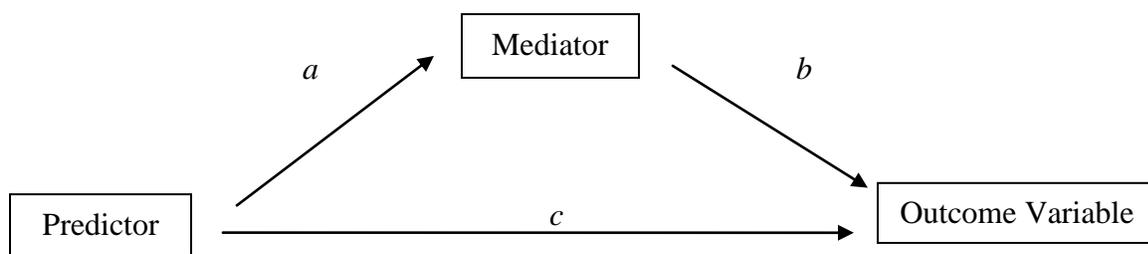


Figure 3. Mediation Diagram

Although the mediation procedure outlined by Baron and Kenny (1986) has been primarily utilized in research over the years, it has been critiqued for having low statistical power and therefore may not produce significant findings for some of the required steps when testing for mediation, particularly in smaller sample sizes (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Preacher & Hayes, 2004). Other methods for evaluating mediation have therefore been suggested in the literature such as including testing for indirect effects (e.g., Sobel, 1982; Preacher & Hayes, 2004). Specifically, an indirect effect of a predictor on an outcome variable with the influence of a mediator variable is defined as the product of the predictor on the mediator variable (Step 2 as outlined by Baron & Kenny, 1986, and illustrated by path *a* in Figure 3 above) and the mediator variable on the outcome variable (Step 3 as outlined by Baron & Kenny, 1986, and illustrated by path *b* in Figure 3 above), thereby denoting the computation

of ab according to Figure 3 above. Testing for indirect effects can be distinguished from testing specifically for mediator effects in that indirect effects do not need to demonstrate the direct significance of the predictor on the outcome variable as does testing for mediator effects (e.g., Step 1 as outlined by Baron & Kenny, 1986, and illustrated by path c in Figure 3 above). In other words, it is possible to find a significant indirect effect even if a significant effect is not found when testing the regression of the predictor on the outcome variable and overall mediation is not demonstrated (Preacher & Hayes, 2004). Thus, although the mediation process outlined by Baron & Kenny (1986) does not include testing for indirect effects and therefore seems to minimize the necessity for having to conduct tests of indirect effects, it may be important to include tests of indirect effects when testing for overall mediation, particularly to address some of the limitations suggested above (Preacher & Hayes, 2004).

In testing for indirect effects, the use of the Sobel test has been suggested and outlined in previous research (e.g., Baron & Kenny, 1986; Preacher & Hayes, 2004; Sobel, 1982). However, the Sobel test seems to be rarely utilized in research (e.g., McKinnon et al., 2002), perhaps due to having fewer statistical computerized programs (e.g., SPSS, SAS) that specifically use this test and therefore require researchers to perform some of the calculations manually (Preacher & Hayes, 2004). Additionally, use of the Sobel test requires that the sample size be large and also assumes that the distribution is normal. Thus, alternative approaches to evaluating indirect effects have been suggested including the bootstrapping process, which is a nonparametric approach to testing that makes no assumptions about the shape of sampling distribution (see Efron & Tibshirani, 1993, and Mooney & Duval, 1993, for more details). The bootstrapping process involves taking a large number of samples based upon the original sample size and estimates a mean indirect effect based upon all the samples, along with providing

confidence intervals that indicate the range where the true indirect effect is estimated to lie. Bootstrapping can be utilized with samples that may not display a normal or symmetrical distribution and can additionally be utilized with both large and small sample sizes.

The importance of testing for both mediation and indirect effects is apparent based upon the limitations outlined above when only electing to utilize one specific procedure. Furthermore, the possibility of finding different results across procedures with variations in the significance of the relationship among the predictor, mediator, and outcome variables prompt the need to find a method that combines the majority of these procedures into an overall analysis so that one can examine these differences. Preacher and Hayes (2004) provide a syntax and a script for use in SPSS that tests for both mediation and indirect effects utilizing the different approaches outlined above including the Baron & Kenny (1986) regression analyses, the Sobel test, and the bootstrapping process. The current study therefore utilized this method of analysis in testing for the possible mediation of coping strategies between child stress and perceptions of parenting behaviors. Specifically, it was hypothesized that coping would mediate children's stress experiences and their perceptions of parenting behaviors as previous research has suggested (see Figure 4).

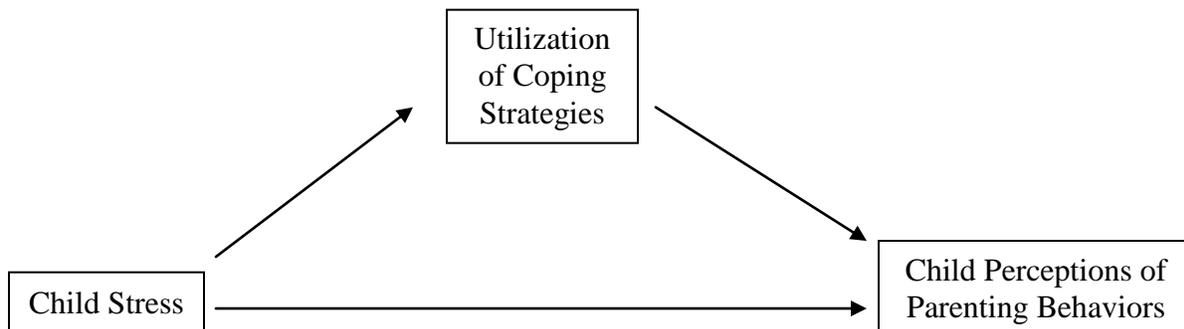


Figure 4. Hypothesis on the Mediation of Coping Strategies between Child Stress and Child Perceptions of Parenting Behaviors

Method

Participants

The participants for this study were recruited from daycare centers located in both East Central Alabama and in West Central Georgia and from Storybook Farm, a local organization for families who experience child illnesses, disabilities, or grief. Personal contact and communication with the daycare centers and Storybook Farm was made in advance to discuss having this research project conducted at their centers or organization. Initial approval and consent was granted following approval by the local university institutional review board.

Demographic data for the overall child sample including the number of children, child age, child grade, child gender, and child race are included in Table 1. The number of children who participated from each area was approximately the same. Specifically, seven daycare centers in East Central Alabama were contacted first and initially distributed parent consent forms for child recruitment, which resulted in parental responses from 4 of the daycare centers. Additionally, the siblings of children who attended Storybook Farm and their parents were approached and asked to complete a packet of measures, resulting in a child sample of $n = 4$. Data from children recruited at Storybook Farms were added to the overall child sample for East Central Alabama ($n = 32$). Similarly, seven daycare centers in West Central Georgia distributed parent consent forms for child recruitment, which resulted in parental responses from 3 of the daycare centers and a child sample of $n = 31$. In the overall child sample, there were slightly more children who were between the ages of 8-10 years and attended the 2nd-4th grades than

children who were between the ages of 11-12 years and attended the 5th-6th grades. From the overall child sample, 56% of the children were female, 48% were African-American, and 38% were Caucasian.

Table 1

Demographic Data for the Child Sample

	East Central Alabama	West Central Georgia	Combined Total
# of Children	32	31	63
Child Age			
8 years old	12	4	10 (16%)
9 years old	8	6	12 (19%)
10 years old	5	10	21 (33%)
11 years old	5	5	12 (19%)
12 years old	2	6	8 (13%)
Child Grade			
2 nd Grade	6	4	28 (44%)
3 rd Grade	8	4	35 (56%)
4 th Grade	9	12	30 (48%)
5 th Grade	7	5	24 (38%)
6 th Grade	2	6	1 (1%)
Child Gender			
Male	12	16	28 (44%)
Female	20	15	35 (56%)
Child Race			
Black/African-American	16	14	30 (48%)
White/Caucasian	14	10	24 (38%)
Asian/Pacific Islander	0	1	1 (1%)
Mixed/Other	2	6	8 (13%)

Based on ANOVA analyses for the overall sample, no significant differences were found for any of the study measures when child age, child gender, and child race were taken into account, with the exception of child grade. Children in the 2nd grade ($M = 16.90$) significantly differed from children in the 3rd ($M = 9.42$) and 5th grade ($M = 8.42$) on the PPI-Child Negative Behavior Scale ($p < .05$), reporting more negative parenting behavior on average. Additionally, children in the 2nd grade ($M = 94.40$) significantly differed from children in the 5th grade ($M = 59.08$) on the CLES ($p < .05$), reporting more stressful life events on average. Additionally, no significant differences were found between the East Central Alabama and West Central Georgia children across responses on each study measure or across demographic variables.

Measures

All child participants completed a brief demographic questionnaire that included information related to gender, age, family size, and race/ethnicity. The child self-report packet of measures included the child report version of the Parent Perception Inventory (PPI-C), a modified child report version of the Parenting Scale (PS-Child), the Children's Life Events Scale (CLES), and the Children's Coping Strategies Checklist (CCSC). Brief descriptions of each measure are included below and can additionally be seen in the Appendix. For those children who had difficulties understanding or reading the questions, one of the researchers read the measures orally to them. In addition, examples related to the questions were provided to children as needed to increase their understanding.

Parent Perception Inventory, Child Version (PPI-Child). The original Parent Perception Inventory (PPI; Hazzard et al., 1983) consists of a child report version in which child perceptions of parental positive and negative behaviors are assessed. This measure includes 18 parental behavior items, 9 of which describe positive parental behavior (positive reinforcement, comfort,

talk time, involvement in decision-making, time together, positive evaluation, allowing independence, assistance, and nonverbal affection) and 9 of which describe negative parental behavior (privilege removal, criticism, command, physical punishment, yelling, threatening, time-out, nagging, and ignoring). For the current study, one negative item question was removed due to concerns related to its personal content (e.g., “How often your mom/dad spank you, slap you, hit you?”). The internal consistency of the PPI-Child with the removal of this one negative item for the current study remained adequate for both the Positive Behavior Scale ($\alpha = .789$) and Negative Behavior Scale ($\alpha = .741$). During administration of the measure, children are read descriptions and given examples of each behavior class and then asked to respond using a 5-point scale ranging from 0 (*never*) to 4 (*a lot*). The PPI-Child yields positive and negative parenting behavior subscale scores, with the positive behavior scale score ranging from a minimum score of 0 to a maximum score of 36 and the negative behavior scale score ranging from a minimum score of 0 to a maximum score of 32 for the current study. Initial studies evaluating the reliability and validity of the PPI-Child are promising (Glaser, Horne, & Myers, 1995; Hazzard et al., 1983; Locke & Prinz, 2002; Salamone, 2006), including the ability to distinguish parenting behaviors across a variety of child age, gender, and clinical groups.

Modified Child Report Version of the Parenting Scale (PS-Child). A child report version of the original Parenting Scale (Arnold, O’Leary, Wolff, & Acker, 1993), which is a 30-item parent report measure assessing parenting discipline practices, was created in the current study for use with children to assess their perceptions of parent discipline behaviors. The questions comprising the child report version are the same as those on the parent report version, differing only in regards to the person doing the evaluation (e.g., the children are asked to report on their parents’ behaviors) and including more developmentally sensitive and simple language to

increase child understanding. The children are asked how their parents would respond to a variety of discipline scenarios using a rating scale from 1 to 7 anchored on each side with an opposing statement. The Parenting Scale produces average scores for 3 subscales (Laxness, Over-reactivity, and Verbosity) and also provides an average total score, each ranging from a minimum average score of 1 to a maximum average score of 7, with higher scores indicative of more dysfunctional parental discipline practices. The Laxness subscale consists of 11 items that are related to a permissive parenting discipline style. The Over-Reactivity subscale consists of 10 items that evaluate parental anger, meanness, and irritability when disciplining their children. The Verbosity subscale consists of 7 items that indicate whether parents primarily rely on verbal communication when dealing with their children's misbehavior. Research has demonstrated the extensive and promising reliability and validity evidence for the original Parenting Scale (e.g., Arnold et al., 1993; Collett, Gimpel, Greenson, & Gunderson, 2001; Freeman & DeCoursey, 2007; Harvey, Danforth, Ulaszek, & Eberhardt, 2001; Irvine, Biglan, Smolkowski, & Ary, 1999; Prinzie, Onghena, & Hellinckx, 2007; Reitman, Currier, Hupp, Rhode, Murphy, & O'Callaghan, 2001; Rhoades & O'Leary, 2007; Steele, Nesbitt-Daly, Daniel, & Forehand, 2005). For example, in the original article by Arnold et al. (1993), the internal consistency ranged from adequate to good overall for the Total Score ($\alpha = .84$), Laxness Subscale ($\alpha = .83$), Over-Reactivity Subscale ($\alpha = .82$), and Verbosity Subscale ($\alpha = .63$), which was similarly found in other research studies. For the current study, the psychometric properties of the newly modified child report version of the Parenting Scale were evaluated and are reported below in the Results section.

Children's Life Events Scale (CLES). The Children's Life Events Scale (CLES; Wagner, Abela, & Brozina, 2006) is a 59-item child report measure assessing life events and stressors in 4

categories: health/illness, family situation, school situation, and social environment. The CLES is comprised of items taken from Coddington's Life Events Scale (1972; 1999), as well as items from the Children's Hassles Scale (Kanner, Feldman, Weinberger, & Ford, 1987). The child is asked to indicate on a 4-point scale whether they have experienced any of the positive or negative life events illustrated on the measure and the frequency of experiencing the event, with higher ratings indicative of more frequent experience with an event. The total score on the CLES can range from a minimum of 0 to a maximum of 177, with higher scores indicating having experienced more life stress events. Initial psychometric evidence for the CLES is promising (e.g., Wagner et al., 2006), along with excellent internal consistency demonstrated for the current study ($\alpha = .930$).

Children's Coping Strategies Checklist (CCSC). The Children's Coping Strategies Checklist (CCSC; Ayers, 1991) is a child report measure that assesses the ways children cope when faced with a problem. The CCSC consists of 4 factor dimensions on active coping strategies, distraction strategies, avoidance strategies, and support-seeking strategies, each comprising individual subscales. Children are asked whether they have used the specific strategies listed to solve a problem within the last month with a scale from 1 (*never*) to 4 (*most of the time*). Scores for each factor dimension are calculated using averages across the subscales that comprise each dimension, resulting in 4 overall dimension coping strategy average scores that can each range from a minimum score of 1 to a maximum score of 4. The higher the average score for each coping strategy, the more that particular coping strategy is utilized when dealing with problems. A variety of psychometric evidence for the CCSC has been found, including its use with specific population of children such as those from divorced families (e.g., Ayers, 1991; Ayers et al., 1996). For the current study, adequate to good internal consistency

was found for the active coping subscale ($\alpha = .856$), distraction coping subscale ($\alpha = .790$), avoidance coping subscale ($\alpha = .695$), and support-seeking coping subscale ($\alpha = .833$).

Procedure

For the children who received consent from their parents to participate in this study, a packet of survey measures, including the PPI-Child, the PS-Child, the CLES, and the CCSC were administered during their time at the daycare center or at Storybook Farm. A brief description of the study was provided to the children, along with verbal instructions regarding how to complete each measure. The completion of the packet took approximately 30-45 minutes. Following the completion of the packet, each child selected an item from a treasure box.

Following initial completion of the child packets, a one-month test-retest reliability session was conducted with the children from the East Central Alabama daycare centers. The same procedure as described above was followed in conducting this test-retest session for this sample of children.

Results

Reliability and Validity of the PS-Child

In order to examine whether the newly modified child version of the Parenting Scale (PS-Child) was effective in assessing child perceptions of parenting behaviors, several psychometric considerations were examined, including internal consistency, test-retest reliability, and validity with another child report of parenting behaviors measure (the Parent Perception Inventory).

Using the factor structure from the original Parenting Scale (Arnold et al., 1993), the internal consistency for the PS-Child Total Score resulted in a Cronbach's alpha of .468, with inter-item correlations ranging from -.467 to .636. The Laxness Subscale demonstrated similar internal consistency ($\alpha = .464$), with inter-item correlations ranging from -.167 to .379. Adequate internal consistency was found for the Over-Reactivity Subscale ($\alpha = .758$) with inter-item correlations ranging from -.202 to .634, while the Verbosity Subscale demonstrated the lowest internal consistency ($\alpha = .364$) with inter-item correlations ranging from -.142 to .368.

Since the internal consistency was found to be low for the PS-Total Scale, Laxness subscale, and the Verbosity subscale when using the original factor structure, the item-total correlations and internal consistency if specific items were deleted were further examined as an attempt to see if significant changes in internal consistency resulted. During this evaluation, it was found that 4 specific measure items (items #5, #11, #20, and #27) demonstrated poor item-total correlations and that their removal from the reliability analysis resulted in higher internal consistency for the PS-Total Scale, Laxness Subscale, and Verbosity Subscale (see Table 2). Item #20 corresponds to the Laxness Subscale, item #11 corresponds to the Verbosity Subscale,

and items #5 and #27 are not included in a specific subscale. No measure items corresponding to the Over-Reactivity Subscale demonstrated significant changes in internal consistency or poor item-total correlations if removed and therefore remained the same for each of the subsequent reliability analyses.

Table 2

Internal Consistency and Item-Total Correlations for the Parenting Scale – Child Form

Scale or Subscale	Original Structure	Removal of 4 Items	Item-Total Correlations			
			<i>Item #5</i>	<i>Item #11</i>	<i>Item #20</i>	<i>Item #27</i>
Total Scale	$\alpha = .468$	$\alpha = .566$	-.141	-.191	-.114	-.335
Laxness Subscale	$\alpha = .464$	$\alpha = .529$			-.097	
Over-Reactivity Subscale	$\alpha = .758$	$\alpha = .758$				
Verbosity Subscale	$\alpha = .364$	$\alpha = .410$.003		

Note: n = 63

Other exploratory reliability analyses were conducted to evaluate additional influences on the internal consistency for the PS-Child Total scale and the subscales. Specifically, sample characteristics were considered, in which the internal consistency was evaluated when the Storybook Farm children ($n = 4$) were excluded from the overall sample, when only considering the children from East Central Alabama ($n = 28$), and when only considering the children from West Central Georgia ($n = 31$). The internal consistency results for each of these exploratory reliability analyses using the original factor structure and also considering the removal of the same 4 items listed above (as these items also appeared to produce poor item-total correlations and significantly affected internal consistency if deleted) are included in Table 3. Although slight variations in internal consistency across the different samples are apparent, results from

each of these analyses are generally similar to the results when using the overall child sample as shown in Table 2.

Table 3

Internal Consistency and Item-Total Correlations for the Parenting Scale – Child Form Across Different Child Samples

Scale or Subscale	Original Structure	Removal of 4 Items	Item-Total Correlations			
<u><i>Excluding Storybook Farm Children (n = 59)</i></u>			<u><i>Item #5</i></u>	<u><i>Item #11</i></u>	<u><i>Item #20</i></u>	<u><i>Item #27</i></u>
Total Scale	$\alpha = .467$	$\alpha = .601$	-.148	-.189	-.095	-.336
Laxness Subscale	$\alpha = .464$	$\alpha = .533$			-.111	
Over-Reactivity Subscale	$\alpha = .758$	$\alpha = .758$				
Verbosity Subscale	$\alpha = .372$	$\alpha = .421$		-.001		
<u><i>East Central Alabama Children Only (n = 28)</i></u>			<u><i>Item #5</i></u>	<u><i>Item #11</i></u>	<u><i>Item #20</i></u>	<u><i>Item #27</i></u>
Total Scale	$\alpha = .526$	$\alpha = .626$.070	-.035	-.122	-.344
Laxness Subscale	$\alpha = .627$	$\alpha = .684$			-.102	
Over-Reactivity Subscale	$\alpha = .624$	$\alpha = .624$				
Verbosity Subscale	$\alpha = .235$	$\alpha = .354$		-.120		
<u><i>West Central Georgia Children Only (n = 31)</i></u>			<u><i>Item #5</i></u>	<u><i>Item #11</i></u>	<u><i>Item #20</i></u>	<u><i>Item #27</i></u>
Total Scale	$\alpha = .397$	$\alpha = .591$	-.386	-.344	-.050	-.331
Laxness Subscale	$\alpha = .159$	$\alpha = .259$			-.137	
Over-Reactivity Subscale	$\alpha = .815$	$\alpha = .815$				
Verbosity Subscale	$\alpha = .487$	$\alpha = .512$.071		

A one-month test-retest reliability of the PS-Child was evaluated with the children from daycare centers located in East Central Alabama ($n = 28$). The correlation between Time 1 and Time 2 (one month later) for the PS-Child Total Score ($r = .646$) was significant at the 0.01 alpha

level, thereby demonstrating adequate test-retest reliability. Similarly, adequate test-retest correlations were found for the Laxness Subscale ($r = .711$) and the Over-Reactivity Subscale ($r = .654$) at the 0.01 alpha level. In contrast, the correlation found for the Verbosity Subscale demonstrated the lowest test-retest reliability ($r = .386$) significant at the 0.05 alpha level. The one-month test-retest reliability for the other child measures was also evaluated (see Table 4).

Table 4
One-Month Test-Retest Reliability for the Child Measures

Measure	Time 1	Time 2	r
	<i>Mean (Standard Deviation)</i>		
Parenting Scale – Child Form (PS-Child)			
Total Score	3.38 (.574)	3.36 (.532)	.646**
Laxness	2.92 (.925)	3.15 (.967)	.711**
Over-Reactivity	3.08 (1.07)	2.99 (1.16)	.654**
Verbosity	4.53 (.956)	4.47 (.809)	.386*
Parent Perception Inventory, Child Report Version (PPI-Child)			
Positive Behavior	28.75 (4.39)	26.96 (6.68)	.486**
Negative Behavior	10.71 (6.05)	10.11 (6.01)	.567**
Child Life Events Scale (CLES)			
	67.79 (28.51)	63.25 (21.08)	.732**
Coping Checklist			
Active Coping	2.48 (.615)	2.45 (.628)	.496**
Distraction Coping	1.98 (.609)	2.01 (.485)	.615**
Avoidance Coping	2.57 (.661)	2.58 (.708)	.371
Support-Seeking Coping	2.02 (.697)	2.15 (.786)	.297

*Significant at the $p < .05$ level ($n = 28$)

**Significant at the $p < .01$ level ($n = 28$)

Finally, validity was evaluated for the PS-Child by comparing it to an existing child report of parenting behaviors measure, the PPI-Child. Overall, the PS-Child Total Score was positively correlated with the Negative Behavior Scale of the PPI-Child ($r = .417, p < .01$) and negatively correlated with the Positive Behavior Scale of the PPI-Child ($r = -.254, p < .05$). Similarly, the PS-Child Over-Reactivity subscale was found to be positively correlated with the Negative Behavior Scale of the PPI-Child ($r = .669, p < .01$) and negatively correlated with the Positive Behavior Scale of the PPI-Child ($r = -.312, p < .05$). No significant correlations were found for the remaining PS-Child Subscales (Laxness and Verbosity) when compared to the PPI-Child Behavior Scales.

In examining the above results on the reliability and validity of the PS-Child, the lower estimates found with regard to internal consistency are concerning and subsequently led to questioning whether this measure should be used in the study's further analyses. As stated above, acceptable reliability coefficient estimates for internal consistency should range from alphas of .60 to as high as .90 (e.g., Anastasi & Urbina, 1997; Carmines & Zeller, 1979; Henson, 2001; Hopkins, 1998; Loewenthal, 2001; Oosterhof, 2001; Taub, 1994). Since the majority of the internal consistency estimates found for the PS-Child Total and Subscales in the above analyses fell below the acceptable reliability standard, it was therefore decided to exclude the PS-Child in the remaining analyses conducted on examining the relationships among child stress, child coping strategies, and child perceptions of parenting behaviors. Although the Over-Reactivity subscale demonstrated adequate reliability and could be used in the remaining analyses, the results from these analyses when including the Over-Reactivity subscale did not produce significant results and are therefore not included below.

Relationship Between Child Stress and Child Perceptions of Parenting Behavior

In order to evaluate possible relationships between child stress and child perceptions of parenting behaviors, regressions were conducted to test whether CLES scores predicted PPI-Child Positive and Negative Behavior Scores (see Table 5). It was found that the CLES significantly predicted the PPI-Child Negative Behavior Score ($F = 27.47, p < .01$) and accounted for 31.1% of the variance. However, the CLES was not found to significantly predict the PPI-Child Positive Behavior Score ($F = 3.88, p = .054$) and only accounted for 6% of the variance.

Table 5

Child Stress as a Predictor of Child Perceptions of Parenting Behaviors

CLES Predicting:	β	F	p	R^2
PPI-Child Negative Behavior	.557	27.47	< .001	.311
PPI-Child Positive Behavior	-.244	3.88	.054	.060

Note: PPI-Child = Parent Perception Inventory, Child Report Version

Coping as a Mediator between Child Stress and Child Perceptions of Parenting Behaviors

Children's use of various coping strategies (e.g., active coping, distraction coping, avoidance coping, and support seeking coping) were evaluated as possible mediators in the relationship between child stress and child perceptions of parenting behaviors. In order to test for mediation, it has been previously suggested in research to examine the significance of both the direct and indirect effects among the predictor (child stress experiences), outcome (child perceptions of parenting behaviors), and mediator (child coping strategies) variables (e.g., Baron & Kenny, 1986; Frazier et al., 2004; Preacher & Hayes, 2004), which was described in more detail above. Thus, a mediation analysis was conducted for each coping strategy using the method referenced from Preacher and Hayes (2004), in which both mediation and indirect effects were evaluated utilizing regression analyses outlined by Baron & Kenny (1986), the Sobel test, and the bootstrapping process.

The mediation analysis results when active coping was set as the mediator variable in the relationship between child stress according to the CLES and child perceptions of parenting behavior according to both the PPI-Child Positive and Negative Behavior are included in Table 6.

Table 6

Mediation of Active Coping on the Relationship Between Child Stress and Child Perceptions of Parenting Behaviors

DV = PPI-Child Positive Behavior	B	SE B	<i>t</i>	β
<u>Direct and Total Effects</u>				
Step 1: IV → DV (CLES → Positive Bx)	-.0561	.0285	-1.97	-.244
Step 2: IV → M (CLES → Active Cope)	.0056	.0026	2.20*	.272*
Step 3: M (IV) → DV (Active Cope [CLES] → Positive Bx)	3.75	1.35	2.77*	.248*
Step 4: IV (M) → DV (CLES [Active Cope] → Positive Bx)	-.0773	.0281	-2.75*	-.337*
<u>Indirect Effects</u>				
	IE	SE	<i>z</i>	95% CI
Sobel Test	.0212	.0128	1.66	(-.0038 – .0462)
Bootstrap Method (5000 Samples)	.0222*	.0140		(.0008 – .0547)
DV = PPI-Child Negative Behavior	B	SE B	<i>t</i>	β
<u>Direct and Total Effects</u>				
Step 1: IV → DV (CLES → Negative Bx)	.131	.0249	5.24**	.557**
Step 2: IV → M (CLES → Active Coping)	.0056	.0026	2.20*	.272*
Step 3: M (IV) → DV (Active Coping [CLES] → Negative Bx)	-.946	1.25	-.757	.0736
Step 4: IV (M) → DV (CLES [Active Coping] → Negative Bx)	.136	.0260	5.23**	.580**
<u>Indirect Effects</u>				
	IE	SE	<i>z</i>	95% CI
Sobel Test	-.0053	.0081	-.658	(-.0213 – .0106)
Bootstrap Method (5000 Samples)	-.0050	.0079		(-.0230 – .0099)

*Significant at the $p < .05$ level

**Significant at the $p < .001$ level

Note: PPI-Child = Parent Perception Inventory, Child Report Version; CLES = Child Life Events Scale; DV = Dependent Variable; IV = Independent Variable; B = Unstandardized Coefficient; SE B = Standard Error for Unstandardized Coefficient; IE = Indirect Effect; SE = Standard Error for Indirect Effect; CI = Confidence Interval; IV → DV = Total Effect of the Independent Variable (Child Stress denoted by the CLES) on the Dependent Variable; IV → M = Effect of the Independent Variable on the Mediator Variable (Active Coping); M (IV) → DV = Effect of the Mediator Variable on the Dependent Variable when controlling for the Independent Variable; IV (M) → DV = Direct Effect of the Independent Variable on the Dependent Variable when controlling for the Mediator Variable

As shown in Table 6, results from the regression analyses of the direct and total effects using the procedure outlined by Baron and Kenny (1986) indicate that active coping did not meet all the requirements to be considered a mediator variable in the relationship between child stress and child perceptions of parenting behaviors using both the PPI-Child Positive and Negative Behavior Scales. Specifically, when PPI-Child Positive Behavior was the dependent variable, Step 1 was not met in that the CLES did not significantly predict PPI-Child Positive Behavior ($\beta = -.244, p = .0536$). Additionally, the CLES did not demonstrate a significant reduction in predicting PPI-Child Positive Behavior when active coping was added to the model ($\beta = -.337, p < .05, R^2 = .166$) and still resulted in a significant relationship ($t = -2.75, p < .05$), which is not in accordance with what is required for full mediation (e.g., a significant relationship is no longer supposed to exist between the independent and dependent variable when the mediator is introduced into the model). When PPI-Child Negative Behavior was the dependent variable, Step 3 was not met in that active coping did not significantly predict PPI-Child Negative Behavior ($\beta = .0736, p = .452$). Additionally, the CLES did not demonstrate a significant reduction in predicting PPI-Child Negative Behavior when active coping was added to the model ($\beta = .580, p < .001, R^2 = .317$) and still resulted in a significant relationship ($t = 5.23, p < .001$), which again opposes what is required for mediation.

Also shown in Table 6, the tests of indirect effects when active coping is considered the mediator variable in the relationship between the CLES and PPI-Child Positive Behavior indicate that the indirect effect of active coping is statistically different from zero using the bootstrapping method (indirect effect = .0222, 95% CI = .0008 – .0547) but not when using the Sobel test (indirect effect = .0128, 95% CI = -.0038 – .0462). No significant indirect effects of active coping were found in the relationship between the CLES and PPI-Child Negative Behavior.

Thus, although active coping did not demonstrate mediation, it was found to have an indirect effect on the relationship between child stress and child perceptions of positive parenting behavior. Specifically, adding active coping increased the variance accounted for by the CLES in predicting PPI-Child Positive Behavior from 6% to 16.6%.

The mediation analysis results when distraction coping was set as the mediator variable in the relationship between child stress according to the CLES and child perceptions of parenting behavior according to both PPI-Child Positive and Negative Behavior are included in Table 7.

Table 7

Mediation of Distraction Coping on the Relationship Between Child Stress and Child Perceptions of Parenting Behaviors

DV = PPI-Child Positive Behavior	B	SE B	<i>t</i>	β
<u>Direct and Total Effects</u>				
Step 1: IV → DV (CLES → Positive Bx)	-.0561	.0285	-1.97	-.244
Step 2: IV → M (Distract Cope → Positive Bx)	.0083	.0025	3.25*	.384*
Step 3: M (IV) → DV (Distract Cope [CLES] → Positive Bx)	1.88	1.43	1.32	.0560
Step 4: IV (M) → DV (CLES [Distract Cope] → Positive Bx)	-.0716	.0307	-2.33*	-.312*
<u>Indirect Effects</u>				
	IE	SE	<i>z</i>	95% CI
Sobel Test	.0155	.0132	1.17	(-.0104 – .0414)
Bootstrap Method (5000 Samples)	.0160	.0130		(-.0062 – .0447)
DV = PPI-Child Negative Behavior	B	SE B	<i>t</i>	β
<u>Direct and Total Effects</u>				
Step 1: IV → DV (CLES → Negative Bx)	.131	.0249	5.24**	.557**
Step 2: IV → M (Distract Cope → Negative Bx)	.0083	.0025	3.25*	.384*
Step 3: M (IV) → DV (Distract Cope [CLES] → Negative Bx)	.0458	1.27	.0361	.218
Step 4: IV (M) → DV (CLES [Distract Cope] → Negative Bx)	.130	.0272	4.79**	.556**
<u>Indirect Effects</u>				
	IE	SE	<i>z</i>	95% CI
Sobel Test	.0004	.0109	.0345	(-.0211 – .0218)
Bootstrap Method (5000 Samples)	.0014	.0104		(-.0171 – .0251)

*Significant at the $p < .05$ level

**Significant at the $p < .001$ level

Note: PPI-Child = Parent Perception Inventory, Child Report Version; CLES = Child Life Events Scale; DV = Dependent Variable; IV = Independent Variable; B = Unstandardized Coefficient; SE B = Standard Error for Unstandardized Coefficient; IE = Indirect Effect; SE = Standard Error for Indirect Effect; CI = Confidence Interval; IV → DV = Total Effect of the Independent Variable (Child Stress denoted by the CLES) on the Dependent Variable; IV → M = Effect of the Independent Variable on the Mediator Variable (Distraction Coping); M (IV) → DV = Effect of the Mediator Variable on the Dependent Variable when controlling for the Independent Variable; IV (M) → DV = Direct Effect of the Independent Variable on the Dependent Variable when controlling for the Mediator Variable

As shown in Table 7, results from the regression analyses of the direct and total effects using the procedure outlined by Baron and Kenny (1986) indicate that distraction coping did not meet all the requirements to be considered a mediator variable in the relationship between child stress and child perceptions of parenting behaviors using both the PPI-Child Positive and Negative Behavior Scales. Specifically, as shown in Step 3 for both analyses, distraction coping did not significantly predict PPI-Child Positive Behavior ($\beta = .0560, p = .194$) or Negative Behavior ($\beta = .218, p = .971$). Additionally, the CLES did not demonstrate a significant reduction in predicting PPI-Child Positive Behavior ($\beta = -.312, p < .05, R^2 = .086$) or PPI-Child Negative Behavior ($\beta = .556, p < .001, R^2 = .311$) when distraction coping was added to the model and still resulted in a significant relationship for both PPI-Child Positive Behavior ($t = -2.33, p < .05$) and PPI-Child Negative Behavior ($t = 4.79, p < .001$), which also opposes what is required for mediation according to the Baron and Kenny procedure. Also shown in Table 7, the indirect effect of distraction coping was not found to be significantly different from zero for the relationship between the CLES and both PPI-Child Positive Behavior and Negative Behavior when using both the Sobel test and bootstrapping method. Thus, distraction coping was not found to mediate or have a significant indirect effect on the relationship between child stress and child perceptions of positive or negative parenting behavior.

The mediation analysis results when avoidance coping was set as the mediator variable in the relationship between child stress according to the CLES and child perceptions of parenting behavior according to both PPI-Child Positive and Negative Behavior are included in Table 8.

Table 8

Mediation of Avoidance Coping on the Relationship Between Child Stress and Child Perceptions of Parenting Behaviors

DV = PPI-Child Positive Behavior	B	SE B	<i>t</i>	β
<i>Direct and Total Effects</i>				
Step 1: IV → DV (CLES → Positive Bx)	-.0561	.0285	-1.97	-.244
Step 2: IV → M (Avoid Cope → Positive Bx)	.0103	.0027	3.88**	.448**
Step 3: M (IV) → DV (Avoid Cope [CLES] → Positive Bx)	-1.12	1.37	-.815	-.200
Step 4: IV (M) → DV (CLES [Avoid Cope] → Positive Bx)	-.0446	.0319	-1.40	-.194
<i>Indirect Effects</i>				
	IE	SE	<i>z</i>	95% CI
Sobel Test	-.0116	.0150	-.773	(-.0409 – .0178)
Bootstrap Method (5000 Samples)	-.0108	.0164		(-.0450 – .0218)
DV = PPI-Child Negative Behavior	B	SE B	<i>t</i>	β
<i>Direct and Total Effects</i>				
Step 1: IV → DV (CLES → Negative Bx)	.131	.0249	5.24**	.557**
Step 2: IV → M (Avoid Cope → Negative Bx)	.0103	.0027	3.88**	.448**
Step 3: M (IV) → DV (Avoid Cope [CLES] → Negative Bx)	1.33	1.20	1.12	.354
Step 4: IV (M) → DV (CLES [Avoid Cope] → Negative Bx)	.117	.0278	4.21**	.498**
<i>Indirect Effects</i>				
	IE	SE	<i>z</i>	95% CI
Sobel Test	.0138	.0133	1.04	(-.0122 – .0398)
Bootstrap Method (5000 Samples)	.0131	.0114		(-.0084 – .0361)

**Significant at the $p < .001$ level

Note: PPI-Child = Parent Perception Inventory, Child Report Version; CLES = Child Life Events Scale; DV = Dependent Variable; IV = Independent Variable; B = Unstandardized Coefficient; SE B = Standard Error for Unstandardized Coefficient; IE = Indirect Effect; SE = Standard Error for Indirect Effect; CI = Confidence Interval; IV → DV = Total Effect of the Independent Variable (Child Stress denoted by the CLES) on the Dependent Variable; IV → M = Effect of the Independent Variable on the Mediator Variable (Avoidance Coping); M (X) → DV = Effect of the Mediator Variable on the Dependent Variable when controlling for the Independent Variable; IV (M) → DV = Direct Effect of the Independent Variable on the Dependent Variable when controlling for the Mediator Variable

As shown in Table 8, results from the regression analyses of the direct and total effects using the procedure outlined by Baron and Kenny (1986) indicate that avoidance coping did not meet all the requirements to be considered a mediator variable in the relationship between child stress and child perceptions of parenting behaviors using both the PPI-Child Positive and Negative Behavior Scales. Specifically, when PPI-Child Positive Behavior was the dependent variable, only Step 2 resulted in a significant relationship, in which the CLES was found to significantly predict avoidance coping ($\beta = .448, p < .001$). No other significant results were found for the other steps. When PPI-Child Negative Behavior was the dependent variable, Step 3 was not met in that avoidance coping did not significantly predict PPI-Child Negative Behavior ($\beta = .354, p = .269$). Additionally, the CLES did not demonstrate a significant reduction in predicting PPI-Child Negative Behavior when avoidance coping was added to the model ($\beta = .498, p < .001, R^2 = .325$) and still resulted in a significant relationship ($t = 4.21, p < .001$), which opposes what is required for mediation. Also shown in Table 8, the indirect effect of avoidance coping was not found to be significantly different from zero for the relationship between the CLES and both PPI-Child Positive Behavior and Negative Behavior scales when using both the Sobel test and bootstrapping method. Thus, avoidance coping was not found to mediate or have a significant indirect effect on the relationship between child stress and child perceptions of positive or negative parenting behavior.

The mediation analysis results when support-seeking coping was set as the mediator variable in the relationship between child stress according to the CLES and child perceptions of parenting behavior according to both PPI-Child Positive and Negative Behavior are included in Table 9.

Table 9

Mediation of Support-Seeking Coping on the Relationship Between Child Stress and Child Perceptions of Parenting Behaviors

DV = PPI-Child Positive Behavior	B	SE B	<i>t</i>	β
<i>Direct and Total Effects</i>				
Step 1: IV → DV (CLES → Positive Bx)	-.0561	.0285	-1.97	-.244
Step 2: IV → M (Support Cope → Positive Bx)	.0093	.0028	3.39*	.398*
Step 3: M (IV) → DV (Support Cope [CLES] → Positive Bx)	3.26	1.27	2.57*	.183*
Step 4: IV (M) → DV (CLES [Support Cope] → Positive Bx)	-.0866	.0298	-2.91*	-.377*
<i>Indirect Effects</i>				
	IE	SE	<i>z</i>	95% CI
Sobel Test	.0305*	.0153	2.00	(.0005 – .0604)
Bootstrap Method (5000 Samples)	.0326*	.0194		(.0049 – .0794)
DV = PPI-Child Negative Behavior	B	SE B	<i>t</i>	β
<i>Direct and Total Effects</i>				
Step 1: IV → DV (CLES → Negative Bx)	.131	.0249	5.24**	.557**
Step 2: IV → M (Support Cope → Negative Bx)	.0093	.0028	3.39*	.398*
Step 3: M (IV) → DV (Support Cope [CLES] → Negative Bx)	-.314	1.17	-.268	.196
Step 4: IV (M) → DV (CLES [Support Cope] → Negative Bx)	.134	.0274	4.88**	.570**
<i>Indirect Effects</i>				
	IE	SE	<i>z</i>	95% CI
Sobel Test	-.0029	.0114	-.257	(-.0253 – .0194)
Bootstrap Method (5000 Samples)	-.0029	.0110		(-.0250 – .0200)

*Significant at the $p < .05$ level

**Significant at the $p < .001$ level

Note: PPI-Child = Parent Perception Inventory, Child Report Version; CLES = Child Life Events Scale; DV = Dependent Variable; IV = Independent Variable; B = Unstandardized Coefficient; SE B = Standard Error for Unstandardized Coefficient; IE = Indirect Effect; SE = Standard Error for Indirect Effect; CI = Confidence Interval; IV → DV = Total Effect of the Independent Variable (Child Stress denoted by the CLES) on the Dependent Variable; IV → M = Effect of the Independent Variable on the Mediator Variable (Support-Seeking Coping); M (X) → DV = Effect of the Mediator Variable on the Dependent Variable when controlling for the Independent Variable; IV (M) → DV = Direct Effect of the Independent Variable on the Dependent Variable when controlling for the Mediator Variable

As shown in Table 9, results from the regression analyses of the direct and total effects using the procedure outlined by Baron and Kenny (1986) indicate that support-seeking coping did not meet all the requirements to be considered a mediator variable in the relationship between child stress and child perceptions of parenting behaviors using both the PPI-Child Positive and Negative Behavior Scales. Overall, the results for support-seeking coping as a mediator are similar to the results when active coping was a mediator (See Table 7 for a comparison). Specifically, when PPI-Child Positive Behavior was the dependent variable, Step 1 was not met in that the CLES did not significantly predict PPI-Child Positive Behavior ($\beta = -.244, p = .0536$). Additionally, the CLES did not demonstrate a significant reduction in predicting PPI-Child Positive Behavior when support-seeking coping was added to the model ($\beta = -.377, p < .05, R^2 = .391$) and still resulted in a significant relationship ($t = -2.91, p < .05$), which opposes what is required for mediation. When PPI-Child Negative Behavior was the dependent variable, Step 3 was not met in that active coping did not significantly predict PPI-Child Negative Behavior ($\beta = .0736, p = .452$). When PPI-Child Negative Behavior was the dependent variable, Step 3 was not met in that support-seeking coping did not significantly predict PPI-Child Negative Behavior ($\beta = .196, p = .789$). Additionally, the CLES did not demonstrate a significant reduction in predicting PPI-Child Negative Behavior when support-seeking coping was added to the model ($\beta = .570, p < .001, R^2 = .558$) and still resulted in a significant relationship ($t = 4.88, p < .001$), which opposes what is required for mediation.

Also shown in Table 9, the tests of indirect effects when support-seeking coping is considered the mediator variable in the relationship between the CLES and PPI-Child Positive Behavior indicate that the indirect effect of support-seeking coping is statistically different from zero using both the Sobel test (indirect effect = .0305, 95% CI = .0005 – .0604) and the

bootstrapping method (indirect effect = .0326, 95% CI = .0049 – .0794). No significant indirect effects of support-seeking coping were found in the relationship between the CLES and PPI-Child Negative Behavior. Thus, although support-seeking coping did not demonstrate mediation, it was found to have an indirect effect on the relationship between child stress and child perceptions of positive parenting behavior. Specifically, adding support-seeking coping increased the variance accounted for by the CLES in predicting PPI-Child Positive Behavior from 24.4% to 39.1%.

Discussion

A primary goal of the current study was to modify an existing parent report measure of parenting discipline behavior (e.g., the Parenting Scale) for use as a child report measure of parenting behaviors and determine whether this newly modified child report measure of parenting behavior demonstrated adequate psychometric properties as reported by its reliability and validity. The hypothesis that the PS-Child would have adequate psychometric properties was partially supported in that the measure demonstrated variations in internal consistency and test-retest reliability ranging from low to adequate overall for its Total score scale and each of its subscales (Laxness, Over-Reactivity, and Verbosity). Using the original factor structure as outlined by Arnold et al. (1993), the Over-Reactivity subscale demonstrated adequate internal consistency and test-retest reliability, the Total score and Laxness subscale both demonstrated slightly lower internal consistency but adequate test-retest reliability, and the Verbosity subscale demonstrated the lowest internal consistency and test-retest reliability. This hierarchy of reliability results found for the PS-Child Total scale and subscales is similar to previous research conducted on the original Parenting Scale, which also tend to find that the Total scale and the Laxness and Over-Reactivity subscales demonstrate better reliability than the Verbosity subscale (e.g., Collett et al., 2001; Harvey et al., 2001; Irvine, 1999; Prinzie et al., 2007; Reitman et al., 2001; Rhoades & O-Leary, 2007; Steele et al., 2005). Using confirmatory and exploratory factor analyses, previous research has specifically found that the Parenting Scale primarily produces a 2-factor solution that corresponds to the Laxness and Over-Reactivity constructs but not the Verbosity construct. This research further suggests that as the Verbosity subscale has not

been found to be a reliable and valid construct within the Parenting Scale, and it appears that the Parenting Scale does not adequately assess this particular dimension of parenting behavior. Additionally, as all items on the Parenting Scale have not been found to relate to a particular construct, other factors may better account for the Parenting Scale items (e.g., Rhoades & O’Leary, 2007).

Due to the low levels of reliability found when utilizing the original factor structure for the PS-Child, alternative analyses considering sample characteristics and specific item influences were explored. With slight variations across sample characteristics, overall results from these exploratory reliability analyses found that the removal of particular items tended to increase the overall internal consistency for the PS-Child Total scale and each of the subscales. This suggests that items were not as reliable or relevant to the specific factor structure of the PS-Child when utilized with the current child sample and therefore should be evaluated further. Notably, despite the increase in internal consistency across the PS-Child Total scale and the subscales when using different samples and removing some key items, the PS-Child Total scale and the Laxness and Verbosity subscales still did not reach adequate internal consistency estimates. In addition, the internal consistency of the PS-Child was not as robust as previous research conducted with the original Parenting Scale (e.g., Arnold et al., 1993; Collett et al., 2001; Freeman & DeCoursey, 2007; Harvey et al., 2001; Irvine, Biglan et al., 1999; Prinzie et al., 2007; Reitman et al., 2001; Rhoades & O’Leary, 2007; Steele et al., 2005). One possible reason for this could be that the reliability of the PS-Child was negatively influenced in the current study by the small sample size. Furthermore, the resulting small dataset did not allow for adequate factor analyses to be conducted in order to evaluate whether the original factor structure was still found to be relevant when using a child sample. As previous research on the original Parenting Scale has produced

variations in its factor structure, specifically with regard to its subscales (e.g., Arnold et al., 1993; Collett et al., 2001; Freeman & DeCoursey, 2007; Harvey et al., 2001; Irvine, Biglan et al., 1999; Prinzie et al., 2007; Reitman et al., 2001; Rhoades & O’Leary, 2007; Steele et al., 2005), one direction for future research with the PS-Child would be the inclusion of more participants and consideration of alternative factor structures. With the inclusion of more participants, research can evaluate whether differences in sample characteristics could affect responding on the PS-Child and subsequently lead to developing norms to use with the PS-Child when working with various child samples. Additionally, factor analyses may lead to the addition or removal of items on the PS-Child, resulting in a different factor structure when using a child sample as opposed to a parent sample and potentially produce stronger reliability estimates for the Total scale and subscales. Along with considering alternative factor structures, perhaps the original structure of the Parenting Scale may need to be altered when using a child sample in order to reduce possible complexity and increase understanding with these younger participants. For example, the way the items are presented (e.g., balancing opposite statements) and the type of response scale used (e.g., dimensional 7-point scale) may have been too complex for children to understand and could therefore have also affected the resulting psychometric properties found for PS-Child in the current study, which will be discussed in more detail below.

In addition to reliability, the PS-Child was compared with another existing child report measure of parenting behaviors, the PPI-Child, to evaluate preliminary convergent validity, with results showing that the PS-Child Total Score and the PS-Child Over-Reactivity subscale were positively correlated with the PPI-Child Negative Behavior scale and negatively correlated with the PPI-Child Positive Behavior scale. This result can be explained by examining the content of items on the PS-Child, which appear to primarily address parental discipline behaviors when

children misbehave, as opposed to addressing positive parenting behaviors when children display good behavior. Furthermore, the items comprising the Over-Reactivity subscale specifically target more ineffective and negative parenting behaviors, which demonstrate a better fit with the Negative Behavior Scale of the PPI-Child than with the Positive Behavior Scale of the PPI-Child.

However, it should be noted that these convergent validity results and the subsequent interpretations of validity for the PS-Child are questionable given the low reliability estimates found for the Total scale and some of the subscales (Laxness and Verbosity). Taking these results together, it does not appear that the PS-Child is a valid measure. It can be suggested that the Over-Reactivity subscale of the PS-Child demonstrates adequate convergent validity as shown by its significant relationship with the PPI-Child due to having demonstrated initial adequate internal consistency and test-retest reliability. However, although the PS-Child Total score was also found to demonstrate convergent validity, it did not obtain adequate internal consistency or test-retest reliability and therefore is questionable with regard to it being a reliable and valid scale. Similarly, the lack of validity evidence as well as adequate internal consistency found for the Laxness and Verbosity subscales questions whether these subscales should be included in the PS-Child or whether the measure needs to be modified in some way to increase its reliability and validity. Thus, given the overall limited and questionable reliability and validity evidence reported by the current study, further research on the psychometric properties of the PS-Child is warranted and strongly encouraged.

A secondary goal of the study was to examine relationships that may exist between child stress and child perceptions of parenting behaviors. Due to the poor initial psychometric properties of the Parenting Scale, only the PPI-Child scores were used for this set of analyses.

As hypothesized, results demonstrated that the more child stress is reported, the more negative parenting behaviors (according to the PPI-Child Negative Behavior Score) were reported. These results are in line with previous research suggesting that stress experienced by children can influence their perceptions and is more likely to induce negative parental responses and a perceived negative family environment (e.g., Goodyer et al., 1990; Hammen et al., 1998; Hardy et al., 1993; Messer & Gross, 1995; Mullins et al., 1985; Power, 2004). Child stress was not found to be related to or influence child perceptions of positive parenting behaviors as reported by the PPI-Child Positive Behavior Scale.

Finally, along with the above goals, children's coping strategies were also evaluated as possible mediator variables affecting the relationship between stress experiences and child perceptions of parenting behaviors. Four types of coping strategies using the Children's Coping Strategies Checklist were examined, including active coping, distraction coping, avoidance coping, and support-seeking coping. Utilizing a method referenced from Preacher and Hayes (2004), in which both mediation and indirect effects were evaluated utilizing regression analyses outlined by Baron & Kenny (1986), the Sobel test, and the bootstrapping process, none of the coping strategies were found to meet the requirements to be considered mediators in the relationship between child stress and child perceptions of parenting behaviors as hypothesized. Additionally, some of the mediation analyses involving the PPI-Child Positive Behavior actually resulted in increased betas which denoted a larger magnitude for the relationship between the independent variable (child stress) and the dependent variable (child perceptions of positive parenting behavior) when the mediating variable was included (coping strategies), indicating possible suppression as opposed to mediation (Conger, 1974; MacKinnon, Krull, & Lockwood, 2000; Tzelgov & Henik, 1991). Suppression is a rare occurrence that has been debated in the

research literature and to detect it would require strong a priori expectations of suppression effects. Thus, since the current study did not have such expectations regarding suppression - and instead predicted mediation - further discussion and interpretations regarding possible suppression will not be addressed here but remain a potential area for future inquiry.

Nonetheless, active coping and support-seeking coping were both found to have an indirect effect on the relationship between child stress and child perceptions of positive parenting behaviors, such that when active coping and support-seeking coping are utilized in response to experiencing stress, child stress is reduced and child perceptions of positive parenting behaviors are significantly increased. These results point to the benefits of utilizing aspects of active coping and support-seeking coping with children in helping to reduce child stress and enhance child perceptions of positive parenting and a positive family environment. In line with these results, previous research has suggested that the use of active and support-seeking coping strategies in response to stress produce positive psychological outcomes for children (e.g., Compas et al., 2001; Sandler et al., 1994; Sandler et al., 2000, Smith et al., 2006).

The lack of findings for avoidance and distraction coping strategies as mediating variables and not having any indirect influence on the relationship between child stress and their perceptions of parenting behaviors is in line with previous research that has also demonstrated that few associations tend to exist between these specific types of coping strategies and parenting behaviors (e.g., Smith et al., 2006). Specifically, previous research has argued that avoidance and distraction coping strategies often involve less social interaction and more use of covert behaviors (e.g., Kliever, Fearnow, & Miller, 1996; Smith et al., 2006) as opposed to active and support-seeking coping, which may reduce their influence on the family environment including parenting behaviors.

Some caution is warranted in interpreting these results overall such that only specific types of coping may have significant mediating or indirect effects, and certain conditions may be necessary to produce these effects such as the type of parenting behaviors that are rated by children (e.g., positive or negative behaviors) and therefore need to be considered within the context of various situations and the type of report being used. Previous research has outlined additional factors that can influence or mediate the relationship between child reports of stress and their use of various coping strategies, such as aspects related to the family environment, level or type of stress experienced, and a child's perceived coping efficacy (e.g., Grant et al., 2003; Sandler, Tein, Mehta, Wolchik, & Ayers, 2000; Smith et al., 2006). Perhaps these additional factors could enhance the mediating effect of various coping strategies for the relationship between stress and child perceptions of parenting behaviors. Thus, future research is needed to further examine the intricate details of the possible mechanism(s) behind these relationships.

Limitations, Implications, and Future Directions

Following the results of the current study, several limitations and future research endeavors should be further considered for the general use of child reports, particularly since utilizing child reports can lead to many important implications for clinical practice.

Psychometric Considerations. Examining the structure of response scales for measures that are utilized in research or clinical practice can be an important consideration to note, particularly if multiple measures that each display different response scaling structures are used together. Bass, Cascio, & O'Connor (1974) discussed different response scales that measures could utilize such as those responses that evaluate the frequency (e.g., how often) and/or amount (e.g., how much) of an event. According to Bass et al. (1974), items intended to provide a response of frequency within a measure would utilize a scale that ranges from *never* to *always*,

whereas items intended to provide a response indication of amount within a measure would utilize a scale that ranges from *none* to *all*. Within these scale ranges, several expressions of frequency and amount could be utilized (Bass et al., 1974). The type of response scale that is chosen for a particular measure should take into consideration exactly what the measure is designed to assess (e.g., construct validity). Some measures may be designed to assess only one specific response category such as frequency of symptoms or occurrence of events, whereas other measures may be designed to assess multiple response categories such as frequency, amount, and duration. For example, one measure used in the current study, the CLES, utilizes a response scale that assesses amount only (e.g., *not at all* to *all the time*). For those measures that assess multiple response categories, one response scale that combines components of both response categories may be utilized. For example, another measure used in the current study, the PPI, combines responses of frequency (e.g., never, sometimes, always) with responses of amount (e.g., a little, pretty much, a lot) into one response scale. Thus, utilizing multiple response categories within one scale can lead to confusion regarding exactly what a measure is designed to assess and evaluate.

It is inevitable that measures will differ in the response scales that are utilized since it will depend on the particular construct that a measure is meant to evaluate, thereby creating a range of variations across measures. Thus, comparisons made across measures and informants could be affected by differences noted in the measure items and response scaling and may be an important consideration to note when analyzing the responses and overall results (e.g., Carlston & Ogles, 2006; Wyatt & Myers, 1987). For the current study in which relationships among varying child measures were evaluated, significant results emerged despite possible differences in measure response scales. Thus, the type of response scale that is used in child report measures

that assess parenting behavior and parenting styles may significantly affect overall responding but may still provide adequate measures of reliability and validity across measures.

As discussed above, the type of response scale that is utilized becomes particularly important to consider when creating or modifying new measures, particularly if wanting to obtain adequate reliability and validity. For the current study, the same 7-point response scale from the original parent report version of the Parenting Scale was utilized for the PS-Child. Anecdotally, the younger children in this study had some difficulty with understanding the response scale utilized by the PS-Child. Perhaps considering alternative response scales for this measure in order to increase understanding and more accurate responding with children would be a useful research endeavor. For instance, minimizing the complexity of the items, reducing the numbers of response choices, and including pictorial response scales are some suggestions to consider in measure modification and creation for younger children (e.g., Chambers & Johnston, 2002; Dodge, Bates, & Pettit, 1990; Ernst, Cookus, & Moravec, 2000; Harter & Pike, 1984; Hughes & Baker, 1990; McConaughy, 2005; Merrell, 2008; Rodriguez & Boggs, 1998).

Child Age Considerations. For the current study, child reports were gathered from children between the ages of 8-12 years. One difference was found between children of varying grades with regard to perceptions of parenting behaviors and life stress experiences. Children who were in the 2nd grade reported more negative parenting behaviors than children in the 3rd and 5th grades. Younger children also reported having more stress experiences relative to that reported by older children. This could be due to the tendency for many of the younger children to answer the questions using the extreme responses, as opposed to taking advantage of the range of responses, which was more often the case with the older children. Perhaps this is due to developmental differences in which younger children display more of an all-or-nothing pattern of

thinking and tend to respond in an extreme manner if given response scale choices when answering questions (e.g., Chambers & Johnston, 2002; Harter, 1996). Additionally, parents may reduce their use of negative parenting behaviors and utilize alternative approaches to discipline older children (e.g., Day, Peterson, & McCracken, 1998; Giles-Sims, Straus, & Sugarman, 1995; Vandenplas-Holper, Roskam, & Pirot, 2006). It was also noted that the older children in this sample appeared to consider the consequences of their responses and seemed more likely to under-report negative parenting behaviors or stressful experiences in order to protect themselves or their families. For example, some children in this study expressed concerns about reporting personal family issues, such as loved ones having been in jail, and appeared to weigh the pros and cons of reporting this information on the forms.

Since the current study only utilized a specific child age and grade sample, evaluating child reports of parenting behaviors, stress experiences, and use of coping strategies across varying age and grade groups is suggested for future research. When working with children across ages, it is important to evaluate the structure of a child measure within a developmental framework, as possible variations in the measure may need to be considered in order to account for developmental differences. For example, as discussed above, specific response scales for child report measures (e.g., Likert-type frequency scales, opposing statements rated along a dimension, etc.) may be too difficult for younger children to understand, thereby prompting the need to consider other types of response scales in order to increase understanding and more accurate responding. Additionally, information that can be reported and gathered from children, as well as their level of understanding, will also vary developmentally (e.g., LaGreca, 1990; Li & Rogers, 2006; Salamone, 2008). Longitudinal research could be conducted in order to evaluate

differences in responding across child groups and how children's perceptions change with age over time.

Child Sample Considerations. In addition to considering child age, future research could also evaluate child reports of parenting behaviors, stress experiences, and use of coping strategies across different samples of children. The current study attempted to utilize a community sample of children drawn from after-school daycare programs. The current study also originally proposed to include a clinical sample of children from Storybook Farm but was not able to obtain an adequate clinical sample of children from this location to use in conducting analyses. Thus, the inclusion of clinical child samples is suggested for future research, particularly to assess if there are any differences in responding across clinical vs. nonclinical samples (e.g., as a measure of criterion-related validity). For example, previous research has demonstrated that relationships exist between negative parenting behavior and child or adolescent behavior problems (e.g., Johnson, Cowan, & Cowan, 1999; Patterson, 1982; Patterson, DeBaryshe, & Ramsey, 1989; Stice & Barrera, 1995). Thus, some potential clinical implications to consider would be to study differences in responding from children who have externalizing behavior disorders (e.g., Oppositional-Defiant Disorder, Attention-Deficit Hyperactivity Disorder), as well from children who have been victims of maltreatment (e.g., physically or emotionally abused by their parents). Furthermore, relationships between parental mental health problems such as depression and child functioning have been extensively demonstrated in the research literature (e.g., Connell & Goodman, 2002; Cummings & Davies, 1994; Cummings, Keller, & Davies, 2005; Elgar, McGrath, Waschbusch, Stewart, & Curtis, 2004; Gross, Shaw, Moilanen, Dishion, & Wilson, 2008; Kane & Garber, 2004). In light of this research, further implications to consider include utilizing a sample of children who have parents

with clinical problems such as internalizing disorders (e.g., depression, anxiety, etc.) in order to evaluate potential differences in how children perceive their parents' behaviors.

As was done in the current study, gathering information directly from children can be helpful and valuable, particularly when inquiring about internalizing behaviors (e.g., anxiety, depression, feelings, thoughts, etc.), which has been shown to be reported more frequently and often more accurately by self-reports than when gathering this information from other informants (e.g., DiBartolo & Grills, 2006; Hart & Lahey, 1999; Kamphaus & Frick, 2002; Martin et al, 2004; Puura et al., 1998; Sorensen, 1993). Additionally, important information from informant-specific reports could be overlooked if multiple informants are used and integrated into the overall analysis (e.g., Rubio-Stipec, Fitzmaurice, Murphy, & Walker, 2003). However, despite some of the benefits of utilizing only one informant, the current study's use of only a child sample does limit the information gathered to only child reports at the exclusion of other informants and their possible contribution. It has been suggested in the literature that utilizing multiple informants when gathering information provides a more thorough and comprehensive analysis and report (e.g., LaGreca, 1990; McConaughy, 2005; Sattler & Hoge, 2006) and may help in providing more evidence on the psychometric properties of measures, specifically with regards to several indices of validity (e.g., convergent and discriminant validity). There have been several studies that have utilized multiple informants (children, parents, teachers, etc.) to examine perceptions with regard to a variety of topics such as depression, anxiety, disruptive and emotional behavior, maltreatment, and chronic pain (e.g., DiBartolo & Grills, 2006; Eccleston, McCracken, Jordan, & Slead, 2007; Kaufman et al., 1994; Kolko & Kazdin, 1993; Moreno, Silverman, Saavedra, & Phares, 2008; Rubio-Stipec et al., 2003; Sternberg et al., 1998). Thus, it

is suggested that other measures, including parenting measures, be adapted for use with both children and parents so that perceptions can be compared across multiple informants.

Future development of child report measures can additionally focus on gathering information regarding children's perceptions related to going through certain programs or therapeutic interventions (e.g., child outcome treatment reports). Existing child report measures have not been found to be adequate at evaluating child perceptions of treatment outcome (e.g., Hazzard et al., 1983; Salamone, 2006). Thus, the development of child report measures that can be used to chart treatment progress would be a valuable direction for researchers to take in the near future. This line of research should include a multi-informant, multi-method methodology in which child perceptions of parent behaviors are used in conjunction with behavioral observations of the parent and child interacting (e.g., Kamphaus & Frick, 2002; LaGreca, 1990; McConaughy, 2005; Sattler & Hoge, 2006). This type of multi-method research could assess how similar or different child perceptions of parenting behavior are to how parents actually behave during dyadic behavioral observations. Taking this research a step further, parent perceptions of their own parenting behavior could also be gathered and compared to both child perceptions of parenting behavior and dyadic behavioral observations. The use of behavioral observations in conjunction with informant reports can help to uncover any reporting biases that may exist and therefore may enhance the accuracy and validity of information gathered (e.g., Kamphaus & Frick, 2002; Knight & Salamone, in press; LaGreca, 1990; Lau et al., 2006; Sattler & Hoge, 2006).

Conclusion

Examining the relations among child perceptions of parenting behavior, their stress experiences, and their use of various coping strategies can lead to many important implications

for clinical practice, including the ability to further enrich the understanding of family processes and how they influence overall child and family functioning. It is the hope of the author that, despite its flaws, the current study can provide some information that will help to promote the development of child report measures of parenting behavior that could be used in future multi-method, multi-informant research with children and families.

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Appendix

Child Survey Measures:

1. Child Demographic Questionnaire (pg. 80)
2. Parent Perception Inventory, Child Report Version (pg. 81)
3. Modified child report version of the Parenting Scale Children's Life Events Scale (pgs. 82-86)
4. Children's Life Events Scale (pgs. 87-90)
5. Children's Coping Strategies Checklist (pgs. 91-94)

CHILD DEMOGRAPHIC QUESTIONNAIRE

Today's Date _____

1. Subject #: _____

2. Grade: _____

3. Age: _____

4. Gender (circle): Male Female

5. Who do you live with? Circle which ones:

Mother	Step-Mother	Grandmother	Aunt	Guardian
Father	Step-Father	Grandfather	Uncle	Foster Parent
Other: _____				

6. Number of brothers or sisters you have living with you: _____

How are they related to you:

Age: _____	Age: _____
Relationship to You (circle): Brother Step-brother Half-brother	Relationship to You (circle): Brother Step-brother Half-brother
Sister Step-sister Half-sister	Sister Step-sister Half-sister
Other: _____	Other: _____

Age: _____	Age: _____
Relationship to You (circle): Brother Step-brother Half-brother	Relationship to You (circle): Brother Step-brother Half-brother
Sister Step-sister Half-sister	Sister Step-sister Half-sister
Other: _____	Other: _____

Age: _____	Age: _____
Relationship to You (circle): Brother Step-brother Half-brother	Relationship to You (circle): Brother Step-brother Half-brother
Sister Step-sister Half-sister	Sister Step-sister Half-sister
Other: _____	Other: _____

7. What is your racial background?

Black/African-American	1
Asian/Pacific Islander	2
White/Caucasian	3
Hispanic	4
Native American	5
Mixed/Other	6

Subject #: _____

PPI CHILD

Instructions: Read the child the following directions: WE WOULD LIKE TO KNOW HOW MUCH YOU THINK YOUR MOM/DAD DOES CERTAIN THINGS AT HOME. WE WILL NOT TALK TO YOUR PARENT(S) ABOUT WHAT YOU TELL US, SO PLEASE TELL US WHAT YOU REALLY THINK. Ask “HOW OFTEN DOES YOUR MOM/DAD...”

	<u>Never</u>	<u>A Little</u>	<u>Sometimes</u>	<u>Pretty Much</u>	<u>A Lot</u>
1. Thank you for doing things, tell you when he/she likes what you did, give you something or let you do something special when you're good?	0	1	2	3	4
2. Take away things when you misbehave (like not letting you watch TV or ride your bike or stay up late or eat dessert)?	0	1	2	3	4
3. Talk to you when you feel bad and help you to feel better, help you with your problems, comfort you?	0	1	2	3	4
4. Tell you you're no good, tell you that you messed up or didn't do something right, criticize you?	0	1	2	3	4
5. Talk to you, listen to you, have a good conversation with you?	0	1	2	3	4
6. Order you around, tell you what to do, give commands?	0	1	2	3	4
7. Let you help decide what to do, let you help figure out how to solve problems?	0	1	2	3	4
8. Play with you, spend time with you, do things with you which you like?	0	1	2	3	4
9. Get mad at you, yell at you, holler at you, scream at you, shout at you?	0	1	2	3	4
10. Say nice things to you, tell you that you're a good boy/girl, compliment you?	0	1	2	3	4
11. Threaten you, tell you that you'll get in trouble if you do something wrong, warn you?	0	1	2	3	4
12. Let you do what other kids your age do, let you do things on your own?	0	1	2	3	4
13. Send you to a room or corner when you do something wrong?	0	1	2	3	4
14. Help you when you need it (with a hard job, with homework, when you can't do something by yourself?	0	1	2	3	4
15. Nag you, tell you what to do over and over again, keep after you to do thing?	0	1	2	3	4
16. Hug you, kiss you, tickle you, smile at you?	0	1	2	3	4
17. Ignore you, not pay any attention to you, not talk to you or look at you?	0	1	2	3	4

Parenting Scale – Child Report Version

Subject #: _____

Think about the adults you live with. Who would you like to think about as you answer the following questions? (Please pick one of the adults below that live with you).

Mom_____ Dad_____

OR:

Other (Circle one): Step-mom, Step-dad, Grandmother, Grandfather, Aunt, Uncle, Foster Parent, Guardian

Directions: At one time or another, all children misbehave or do things that could be harmful, that are “wrong,” or that parents or other adults don’t like. Examples include:

hitting someone
forgetting homework
having a tantrum
running into the street

whining
throwing food
lying
talking back

not picking up toys
not wanting to go to bed
wanting a cookie before dinner
coming home late

Parents or other adults have many different ways or styles of dealing with these types of problems. Below are items that list some styles of parenting behavior.

For each item, fill in the circle that best describes your parent’s or other adult’s style of parenting during the past two months with you (think about the adult you circled above).

SAMPLE ITEM:

At meal time...

My parent lets me decide
how much to eat.

0---0---0---0---0---0

My parent decides
how much I eat.

1. When I misbehave...

My parent does something
right away.

0---0---0---0---0---0

My parent does
something about it
later.

2. Before my parent does something about a problem...

My parent gives me several reminders or warnings. 0---0---0---0---0---0

My parent uses only one reminder or warning.

3. When my parent is upset or under stress...

My parent is picky and on my back. 0---0---0---0---0---0

My parent is no more picky than usual.

4. When my parent tells me not to do something...

My parent says very little. 0---0---0---0---0---0

My parent says a lot.

5. When I bother my parent...

My parent can ignore me bothering them. 0---0---0---0---0---0

My parent can't ignore me bothering them.

6. When I misbehave...

My parent usually gets into a long fight with me. 0---0---0---0---0---0

My parent doesn't get into a fight with me.

7. My parent threatens to do things that...

My parent is sure he/she can carry out. 0---0---0---0---0---0

My parent knows he/she won't actually do.

8. My parent is the kind of parent that...

sets limits on what I am allowed to do. 0---0---0---0---0---0

lets me do whatever I want.

9. When I misbehave...

My parent gives me a long talk. 0---0---0---0---0---0

My parent keeps his/her talks short and to the point.

10. When I misbehave...

My parent raises their voice or yells. 0---0---0---0---0---0

My parent speaks to me calmly.

11. If saying “No” doesn’t work right away...

My parent takes some other kind of action. 0---0---0---0---0---0

My parent keeps talking and tries to get through to me.

12. When my parent wants me to stop doing something...

My parent demands that I stop. 0---0---0---0---0---0

My parent begs me to stop.

13. When I am out of my parent’s sight...

My parent often doesn’t know what I’m doing. 0---0---0---0---0---0

My parent always has a good idea of what I am doing.

14. After there’s been a problem with me...

My parent often complains about me and is mean to me. 0---0---0---0---0---0

Things get back to normal quickly.

15. When we’re not at home...

My parent handles me the way they do at home. 0---0---0---0---0---0

My parent lets me get away with a lot more.

16. When I do something my parent doesn’t like...

My parent does something about it. 0---0---0---0---0---0

My parent often lets it go every time it happens.

17. When there is a problem with me...

things build up and my parent does things he/she don’t mean to do. 0---0---0---0---0---0

things don’t get out of control.

18. When I misbehave, my parent spanks, slaps, grabs, or hits me...

never or rarely. 0---0---0---0---0---0

most of the time.

19. When I don’t do what my parent asks...

My parent often lets it go or ends up doing it themselves. 0---0---0---0---0---0

My parent takes some other action.

20. When my parent gives a fair threat or warning...

My parent often doesn't carry it out. 0---0---0---0---0---0

My parent always does what they said.

21. If saying "No" doesn't work...

My parent takes some other kind of action. 0---0---0---0---0---0

My parent offers me something nice so I will behave.

22. When I misbehave...

My parent handles it without getting upset. 0---0---0---0---0---0

My parent gets so upset and angry that I can see they are upset and angry.

23. When I misbehave...

My parent makes me tell why I did it. 0---0---0---0---0---0

My parent says "No" or takes some other action.

24. If I misbehave and then act sorry...

My parent handles the problem like they usually would. 0---0---0---0---0---0

My parent lets it go that time.

25. When I misbehave...

My parent rarely uses bad language or curses. 0---0---0---0---0---0

My parent almost always uses bad language.

26. When my parent says I can't do something...

My parent lets me do it anyway. 0---0---0---0---0---0

My parent sticks to what they said.

27. When my parent has to handle a problem...

My parent tells me they are sorry about it. 0---0---0---0---0---0

My parent doesn't say they are sorry.

28. When I do something my parent doesn't like, my parent says mean things or calls me names...

never or rarely. 0---0---0---0---0---0

most of the time.

29. If I talk back or complain when my parent handles a problem...

My parent ignores the complaining and sticks to what they said.

0---0---0---0---0---0

My parent gives me a talk about not complaining.

30. If I get upset when my parent says “No”...

My parent backs down and gives in to me.

0---0---0---0---0---0

My parent sticks to what they said.

Subject Number: _____

CLÉS

Here is a list of things that might happen to children. For each sentence, we would like to know whether or not it happened to you in the past six weeks. If it did happen to you in the past six weeks, we would like to know how often it happened. Read each sentence and circle:

(0) if it did not happen

(1) if it happened a few times OR only lasted a little bit

(2) if it happened many times OR lasted a while

(3) if it happened all the time OR lasted a long time

- | | | | | | |
|-----|---|---|---|---|---|
| 1. | KIDS AT SCHOOL TEASED YOU. | 0 | 1 | 2 | 3 |
| 2. | YOU HAD TO CLEAN UP YOUR ROOM. | 0 | 1 | 2 | 3 |
| 3. | YOU WERE PUNISHED FOR SOMETHING YOU DIDN'T DO. | 0 | 1 | 2 | 3 |
| 4. | YOU GOT PUNISHED WHEN YOU DID SOMETHING WRONG. | 0 | 1 | 2 | 3 |
| 5. | YOUR PET DIED. | 0 | 1 | 2 | 3 |
| 6. | YOUR BEST FRIEND DIDN'T WANT TO BE YOUR BEST FRIEND ANYMORE. | 0 | 1 | 2 | 3 |
| 7. | YOUR MOTHER OR FATHER WASN'T HOME WHEN YOU EXPECTED THEM. | 0 | 1 | 2 | 3 |
| 8. | YOU LOST SOMETHING. | 0 | 1 | 2 | 3 |
| 9. | YOUR MOTHER OR FATHER GOT SICK. | 0 | 1 | 2 | 3 |
| 10. | YOUR MOTHER OR FATHER WAS MAD AT YOU FOR GETTING A BAD SCHOOL REPORT. | 0 | 1 | 2 | 3 |
| 11. | YOUR TEACHER WAS MAD AT YOU BECAUSE OF YOUR BEHAVIOR. | 0 | 1 | 2 | 3 |
| 12. | YOUR SCHOOLWORK WAS TOO HARD. | 0 | 1 | 2 | 3 |
| 13. | YOU GOT INTO A FIGHT WITH ANOTHER KID. | 0 | 1 | 2 | 3 |

14.	YOU DIDN'T DO WELL AT SPORTS.	0	1	2	3
15.	YOU HAD TO GO TO BED WHEN YOU DIDN'T FEEL LIKE IT.	0	1	2	3
16.	YOUR MOTHER OR FATHER DIDN'T HAVE ENOUGH TIME TO DO SOMETHING WITH YOU.	0	1	2	3
17.	YOU DIDN'T KNOW THE ANSWER WHEN THE TEACHER CALLED ON YOU.	0	1	2	3
18.	WHEN THE KIDS WERE PICKING TEAMS YOU WERE ONE OF THE LAST ONES TO BE PICKED.	0	1	2	3
19.	YOUR MOTHER AND FATHER WERE FIGHTING.	0	1	2	3
20.	YOUR MOTHER OR FATHER FORGOT TO DO SOMETHING THEY SAID THEY WOULD DO.	0	1	2	3
21.	YOU FELT BORED AND WISHED THERE WAS SOMETHING INTERESTING TO DO.	0	1	2	3
22.	YOUR BROTHERS OR SISTERS BUGGED YOU.	0	1	2	3
23.	YOU DIDN'T LIKE THE WAY YOU LOOKED AND WISHED YOU COULD BE DIFFERENT (I.E., TALLER, STRONGER, BETTER-LOOKING).	0	1	2	3
24.	ANOTHER KID COULD DO SOMETHING BETTER THAN YOU COULD.	0	1	2	3
25.	YOU DIDN'T HAVE ENOUGH PRIVACY (A TIME AND PLACE TO BE ALONE) WHEN YOU WANTED IT.	0	1	2	3
26.	YOUR MOTHER OR FATHER TOLD YOU TO DO SOMETHING WHEN YOU WERE ALREADY DOING SOMETHING.	0	1	2	3

27.	ANOTHER KID INTERRUPTED YOU WHEN YOU WERE DOING SOMETHING.	0	1	2	3
28.	YOU HAD TROUBLE LEARNING SOMETHING NEW.	0	1	2	3
29.	YOU WORRIED YOU WERE GOING TO BE PUNISHED.	0	1	2	3
30.	ANOTHER KID GOT SOMETHING THAT YOU DIDN'T.	0	1	2	3
31.	YOUR TEACHER WAS ABSENT.	0	1	2	3
32.	YOU HAD TROUBLE FINISHING YOUR HOMEWORK.	0	1	2	3
33.	YOU HAD TO GIVE A TALK IN FRONT OF THE CLASS.	0	1	2	3
34.	YOU DID SOMETHING WRONG AT HOME.	0	1	2	3
35.	YOU DID SOMETHING WRONG AT SCHOOL.	0	1	2	3
36.	YOUR MOTHER OR FATHER THOUGHT YOU COULDN'T DO SOMETHING YOU COULD DO.	0	1	2	3
37.	YOUR MOTHER OR FATHER DIDN'T LET YOU DO SOMETHING YOU THOUGHT YOU SHOULD BE ABLE TO DO.	0	1	2	3
38.	YOUR PARENTS GAVE BIRTH TO OR ADOPTED A BROTHER OR SISTER.	0	1	2	3
39.	YOUR BROTHER OR SISTER LEFT HOME.	0	1	2	3
40.	A CLOSE FRIEND OR FAMILY MEMBER HAD TO GO TO THE HOSPITAL.	0	1	2	3
41.	YOUR MOTHER OR FATHER BEGAN WORK.	0	1	2	3
42.	YOUR MOTHER OR FATHER BECAME BUSY AT WORK AND WEREN'T HOME AS OFTEN AS A RESULT.	0	1	2	3

43.	YOUR FATHER OR MOTHER LOST THEIR JOB.	0	1	2	3
44.	YOUR PARENTS BECAME SEPARATED OR DIVORCED.	0	1	2	3
45.	YOUR MOTHER OR FATHER REMARRIED.	0	1	2	3
46.	A FAMILY MEMBER OR CLOSE FRIEND WENT TO JAIL.	0	1	2	3
47.	AN ADULT RELATIVE MOVED INTO YOUR HOME.	0	1	2	3
48.	YOUR PARENTS WORRIED ABOUT MONEY.	0	1	2	3
49.	YOUR PARENTS ARGUED WITH EACH OTHER.	0	1	2	3
50.	YOU ARGUED WITH YOUR PARENTS.	0	1	2	3
51.	YOU DISCOVERED THAT YOU WERE ADOPTED.	0	1	2	3
52.	YOU HAD TO GO TO THE HOSPITAL.	0	1	2	3
53.	A CLOSE FRIEND OR RELATIVE OF YOURS DIED.	0	1	2	3
54.	YOU FAILED A CLASS IN SCHOOL.	0	1	2	3
55.	YOU WERE SUSPENDED FROM SCHOOL.	0	1	2	3
56.	YOU BECAME INVOLVED WITH DRUGS OR ALCOHOL.	0	1	2	3
57.	YOU DID NOT MAKE AN ACTIVITY YOU WANTED TO BE INVOLVED IN.	0	1	2	3
58.	YOU BROKE UP WITH YOUR BOYFRIEND/GIRLFRIEND.	0	1	2	3
59.	KIDS AT SCHOOL WERE MEAN TO YOU.	0	1	2	3

COPING CHECKLIST

Sometimes kids have problems or feel upset about things. When this happens, they may do different things to solve the problem or to make themselves feel better.

Below is a list of things kids may do when faced with a problem. For each item, select the response that best describes how often you usually do the behavior when you have a problem. There are no right or wrong answers, just indicate how often you usually do each thing in order to solve the problem or to make yourself feel better.

Responses:

(1)	(2)	(3)	(4)
Never	Sometimes	Often	Most of the Time

When I have a problem, I...

- 1. Think about what I could do before I do something.
- 2. Tried to notice or think about only the good things in life.
- 3. Talk about how I am feeling with my mother or father.
- 4. Go bicycle riding.
- 5. Try to stay away from the problem.

When I have a problem, I...

- 6. Blame or say bad things about other people.
- 7. Do something to make things better.
- 8. Think about why it has happened.
- 9. Write down my feelings.
- 10. Tell myself to accept this situation the way it is.

When I have a problem, I...

- 11. Listen to music.
- 12. Try to put it out of my mind.
- 13. Figure out what I can do by talking with one of my friends.
- 14. Think about what would happen before I decide what to do.
- 15. Tell myself it will be over in a short time.

Responses:

(1)	(2)	(3)	(4)
Never	Sometimes	Often	Most of the Time

When I have a problem, I...

- 16. Talk about how I am feeling with some of adult who is not in my family.
- 17. Play sports.
- 18. Tried to stay away from things that make me feel upset.
- 19. Do something bad or cause trouble.
- 20. Try to make things better by changing what I do.

When I have a problem, I...

- 21. Ask God to help me understand it.
- 22. Cry by myself.
- 23. Go for a walk.
- 24. Imagine how I'd like things to be.
- 25. Talk to my brother or sister about how to make things better.

When I have a problem, I...

- 26. Think about which things our best to do to handle the problem.
- 27. Remind myself that things could be worse.
- 28. Talk with my brother or sister about my feelings.
- 29. Go skateboard riding or roller skating.
- 30. Avoid the people that make me feel bad.

When I have a problem, I...

- 31. Get angry and threaten the people who caused the problem.
- 32. Talk to someone who might understand how I feel.
- 33. Do something to solve the problem.
- 34. Try to understand it better by thinking more about it.
- 35. Let out feelings to my pet or stuffed animal.

Responses:

(1)	(2)	(3)	(4)
Never	Sometimes	Often	Most of the Time

When I have a problem, I...

- 36. Read a book or magazine.
- 37. Wait and hope that things will get better.
- 38. Try to solve the problem by talking with my mother or father.
- 39. Think about what I need to know so I can solve the problem.
- 40. Tell myself it's not worth getting upset about.

When I have a problem, I...

- 41. Talk with one of my friends about my feelings.
- 42. Do some exercise.
- 43. Avoid it by going to my room.
- 44. Do something like video games or a hobby.
- 45. Talk to someone who could help me make the situation better.

When I have a problem, I...

- 46. Do something in order to get the most I can out of the situation.
- 47. Think about what I can learn from the problem.
- 48. Let off steam by hitting my pillow or bed.
- 49. Watch TV.
- 50. Wish that things were better.

When I have a problem, I...

- 51. Try to figure out what I can do by talking to an adult who is not in my family.
- 52. Try to figure out why things like this happen.

HOW WELL I COPE

Sometimes things people do to handle their problems work really well to make the situation better and sometimes they don't work at all to make the situation better.

1. Overall, how well do you think that the things you usually do work to make the SITUATION BETTER?

(1)	(2)	(3)	(4)
Do not work at all	Work a little	Work pretty well	Work very well

Sometimes things people do to handle their problems work really well to make them feel better and sometimes they don't work at all to make them feel better.

2. Overall, how well do you think that the things you usually do work to make you FEEL BETTER?

(1)	(2)	(3)	(4)
Do not work at all	Work a little	Work pretty well	Work very well