ABSTRACT
This project investigated family problem solving and interactive processes in 31 physically abusive parent-child dyads and 31 control dyads. Parents and their children completed a family problem-solving interaction task. Behaviors related to family problem solving were coded for each parent and child. Specific behaviors coded for the parent included problem solving behavior, supportive behavior, aversive behavior, and unproductive problem talk. Specific behaviors coded for the child included problem solving behavior, cooperative behavior, oppositional behavior, and withdrawal behavior. Analyses evaluated group differences on each of these variables. In addition, sequential analyses were conducted to examine sequential associations between specific parent and child behaviors within interactions. Findings indicated that physically abusive parents exhibited fewer problem solving skills and less nonverbal support behavior than control parents. Further, physically abused children demonstrated less nonverbal cooperative behavior than control children. In regard to the sequential analyses, none of the predicted associations between parent and child behaviors were found; however, exploratory analyses indicated other significant relations. Findings are discussed from a developmental psychopathology approach, emphasizing the importance of parent-child interactions in children’s social and psychological development.

INDEX WORDS: family problem solving, physical abuse, parent-child interactions
PARENT CHILD INTERACTIONS IN PHYSICALLY ABUSIVE FAMILIES:
AN EXAMINATION OF FAMILY PROBLEM-SOLVING
AND INTERACTIVE PROCESSES
by
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Acknowledgements</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgements</td>
<td>iv</td>
</tr>
</tbody>
</table>

## Chapter

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Parent child interactions in physically abusive families: An examination of family problem-solving and interactive processes</td>
<td>1</td>
</tr>
<tr>
<td>Theory</td>
<td>4</td>
</tr>
<tr>
<td>Parental Socialization and Child Socioemotional Adjustment</td>
<td>7</td>
</tr>
<tr>
<td>Interactive Processes in Family Interactions</td>
<td>10</td>
</tr>
<tr>
<td>Family Problem Solving</td>
<td>13</td>
</tr>
<tr>
<td>Child Physical Abuse and Socioemotional Adjustment</td>
<td>17</td>
</tr>
<tr>
<td>Parental Socialization and Child Physical Abuse</td>
<td>18</td>
</tr>
<tr>
<td>Family Problem Solving and Child Physical Abuse</td>
<td>19</td>
</tr>
<tr>
<td>The Current Study</td>
<td>20</td>
</tr>
<tr>
<td>2 Method</td>
<td>23</td>
</tr>
<tr>
<td>Participants</td>
<td>23</td>
</tr>
<tr>
<td>Power Analyses</td>
<td>23</td>
</tr>
<tr>
<td>Materials</td>
<td>24</td>
</tr>
<tr>
<td>Procedure</td>
<td>25</td>
</tr>
<tr>
<td>Observation and Coding Procedures</td>
<td>26</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>RESULTS</td>
<td>28</td>
</tr>
<tr>
<td>Data Analysis Strategy</td>
<td>28</td>
</tr>
<tr>
<td>Demographics</td>
<td>29</td>
</tr>
<tr>
<td>Child Abuse Potential</td>
<td>29</td>
</tr>
<tr>
<td>Group Differences in Parent Behavior</td>
<td>29</td>
</tr>
<tr>
<td>Group Differences in Child Behavior</td>
<td>31</td>
</tr>
<tr>
<td>Sequential Associations Among Parent/Child Behaviors</td>
<td>32</td>
</tr>
<tr>
<td>DISCUSSION</td>
<td>37</td>
</tr>
<tr>
<td>Group Differences in Parent Behavior</td>
<td>38</td>
</tr>
<tr>
<td>Group Differences in Child Behavior</td>
<td>41</td>
</tr>
<tr>
<td>Sequential Relationships Between Parent and Child Behavior</td>
<td>43</td>
</tr>
<tr>
<td>Limitations and Considerations for Future Research</td>
<td>48</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>51</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>59</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1: Means and standard deviations of parent behavior by group ..........................................34
Table 2: Means and standard deviations of child behavior by group ............................................35
Table 3: Contingency Table for sequential association adjusted residuals....................................35
Table 4: Summary of significant findings for sequential analyses ................................................36
CHAPTER 1

PARENT CHILD INTERACTIONS IN PHYSICALLY ABUSIVE FAMILIES: AN EXAMINATION OF FAMILY PROBLEM SOLVING AND INTERACTIVE PROCESSES

Developmental research highlights the importance of parent-child interaction patterns in fostering children’s healthy social and emotional development. In fact, Sroufe and Rutter (1984) highlight that many of the emotional problems of young children can be best conceptualized as relationship disturbances. In this view, emotional and behavioral symptoms of the child may be strongly influenced by ongoing difficulties of the caregiver that alter the quality of the parent-child relationship (LaFreniere, 1997) and consequently, the child's resulting socialization experience.

One dimension of parent-child interactions that has recently received attention is family problem solving. A family’s problem solving ability includes their ability to formulate a problem definition, generate future-oriented solutions, evaluate the potential consequences of the solutions, select a solution, and then evaluate whether the solution has worked and renegotiate if necessary (Foster & Robin, 1998). Family problem solving is an important aspect of parent-child interactions as failure to solve problems related to daily living has been hypothesized to result in frustration or inability to cope, leading to deviant parental behavior such as aggression or neglect (Wolfe, Sandler, & Kaufman, 1981). Family problem solving skills also have implications for children's development as they have been found to relate to children’s intrapersonal and interpersonal adjustment (Dadds & Brisbane, 1987; Forgatch, 1989; McCombs, Forehand, & Smith, 1988; Pianta & Harbers, 1996). More specifically, as children observe their parents and
participate with them in routine problem situations at home, children learn behavioral and communication strategies, ways of thinking about such situations, and also ways of regulating affect (Vuchinich, Angelli, & Gatherum, 1996). This suggests that family problem solving plays an important role in children's adjustment and in turn illustrates why teaching parents effective problem solving skills is often a major goal of family intervention.

While several studies have been conducted examining family problem solving scenarios in clinical populations, relatively little research has been conducted examining these socialization processes as they occur in physically abusive families. In particular, within the physical abuse literature, researchers have typically focused on the psychological outcomes of abuse on children (e.g. social difficulties, behavior problems) but have given less attention to aspects of parental socialization that may underlie these outcomes. The investigation of family problem solving may contribute not only to current knowledge about factors that may contribute to parents' use of abusive behavior, but also to knowledge about factors influencing abused children's adaptational failures (e.g. aggressive behavior, poor peer relations). This potentially can inform the development of intervention programs for abusive families as well as prevention programs for families at-risk for child physical abuse.

From a developmental psychopathology perspective (Cicchetti & Toth, 1995; Sroufe & Rutter, 1984), examining socialization processes associated with both typical and atypical socialization histories can provide insight into ways that atypical socialization experiences may relate to atypical psychological outcomes in children. Child physical abuse provides an interesting paradigm for assessing this as these families' socialization processes are characterized by either hostile parental responses or a lack of responding to everyday family problems, which may model for children atypical means of managing emotionally arousing problems. Problem
solving skills are an important consideration in physically abusive families, given that the way in which physically abusive parents deal with life stressors appears to be characterized by a tendency to react without engaging in the necessary problem solving processes (Cantos, Neale, & O’Leary, 1997).

Unfortunately, relatively little research has been conducted examining the problem solving skills of physically abusive parents. Of the research that exists, most studies have tended to utilize self-report measures, as opposed to actual observation of family interactions. Self-report measures provide limited information as parents are often unaware of their automatic action-reaction patterns (Dishion, Patterson, & Kavanagh, 1992). As well, self-report measures sometimes pull for socially desirable responses. Observation of family interactions while problem solving is valuable, as it is likely to be representative of parental behavior in everyday emotionally arousing problem situations. These observations are informative as they provide information not only about factors related to parental problem solving, but also an observation of how children respond to parental behavior. From a Developmental Psychopathology perspective, the present study examined the family problem solving interactions of physically abusive parent-child dyads and a matched control group in order to gain more information about factors related to parent problem solving, child behavioral responses, and individual parent-child interaction processes.

In the following introductory sections, theory will be reviewed as well as research that demonstrates the importance of parental socialization in children’s social and emotional development. Further, these sections will highlight studies examining how specific parental behaviors affect specific child behaviors within parent-child interactions. Next, the literature examining family problem solving will be reviewed. Finally, the literature on child physical
abuse will be reviewed, with particular attention devoted to the limited literature that has focused on family problem solving within physically abusive families.

Theory

Most notable through the Social Learning Theory (Bandura, 1969), behavioral theorists have highlighted the importance of observational learning, modeling, and reinforcement in the development and maintenance of human behavior. This is particularly remarkable in the influence of parent-child interactions on children's behavioral outcomes. This Social Learning Theory provides several premises relevant to parental socialization processes. First, Bandura highlights that an individual's characteristic patterns of behavior are shaped by the models that they are exposed to, with a model referring to any person who's behavior is observed by another. Bandura highlights that individuals are especially likely to imitate the behavior of people that they like and respect, such as in the case of children modeling parental behavior. This highlights that many individual behaviors are the product of imitation. Second, the theory states that both classical and operant conditioning can occur vicariously when one person observes another's behavioral experience. Finally, it highlights that performance of an observationally learned response is largely regulated by reinforcing outcomes. Therefore, a behavior is more likely to reoccur if it is positively reinforced (i.e. the behavior is followed by something pleasant) or negatively reinforced (i.e. the behavior is followed by the removal of something aversive).

Together, Bandura’s three factors highlight several variables potentially affecting a child's behavior. For example, a parent may model particular behaviors such as becoming aggressive when overwhelmed by a problem or when in an emotionally arousing situation. Further, the parent may provide low rates of positive attention to their child's prosocial behavior. In this case, as the child watches their parent solve problems in maladaptive ways, such as with
aggression, the child may learn to use the same maladaptive strategies in situations where effective problem solving skills are needed. Therefore, they may learn to use aggression to solve an emotionally arousing problem and fail to learn the more effective ways of solving problems. In this, particular behavior patterns are inadvertently established and/or maintained by the child’s interaction with the parent (Eyberg, 1992). As well, a parent may unintentionally reinforce a child’s negative behavior with attention, such as in the case when a parent repeatedly lectures their child for negative behavior. While in this case the parent’s intent is to decrease the negative behavior, a child (especially one who receives little attention) may be highly reinforced by any attention at all that they receive.

Patterson's Coercion Theory (Patterson, 1982) highlights the reciprocal nature of this interaction as well as how this pattern of interaction may have short-term, but not long-term, payoffs for both the parent and the child. The Coercion Theory poses that an individual influences his or her environment and in turn is shaped by it, or more simply that behavior and environment interact. Within the coercive process, the primary mechanism at work is negative reinforcement. Specifically, parents with limited parent management skills attempt to control their child with irregular and sometimes aversive behavior management practices. Likewise, the child responds with their own coercive and manipulative behavior. This coercive cycle continues until one party "wins" at which point that party is reinforced for their aversive behavior. Over time, the intensity of these behaviors grows as each family member becomes increasingly skilled at controlling the other's behavior. For example, in the case of physically abusing parents, physically abusive mothers are likely negatively reinforced by maladaptive problem solving (e.g. criticism, yelling, hitting) as this ends the conflict with their children and yields compliance. Similarly, abused children may learn to withdraw from their parent or may interact with them in
coercive ways to achieve their own short term goals. Further, they may solve problems with other children at school by using aggression, leading to trouble in school which results in more reprimanding at home. In this, each member of the family attempts to control the behaviors of the other through behaviors (whining, arguing, criticizing, aggressing, withdrawing) that are maintained by positive reinforcement (e.g. compliance, attention) or negative reinforcement (e.g. removal of an aversive interaction) (Foote, Eyberg, Schuhmann, 1998). Both the parent and the child are participating in a system that has short-term pay-offs, but which result in the establishment of long-term problems for the family and the child's behavioral adjustment.

While the child's interpersonal style, such as acting aggressively when faced with a problem, is learned from their family context, this behavior is often carried over into their interactions with others outside the family relationships (such as peers and teachers). Unfortunately, as soon as the child goes outside of the home and attempts to relate to others, the dysfunction becomes apparent. For example, when the child has a disagreement with another child at school, he may become aggressive with that child. In this context, his social adjustment is likely to become impaired as he will not understand the behavioral choices and responses of others, nor will they understand his. Therefore, while this child’s behavioral acting out is learned within a context at home, it can put him at risk for adaptational failures in contexts outside the home, such as school.

Research has also suggested the importance of the family emotional climate (i.e. family and parental expressiveness) and parental emotion socialization (e.g. response to children’s emotional displays) in children’s socialization experiences. Emotion-eliciting interactions between mothers and children, such as discussions of family problems, can be crucial situations in which children begin to learn about emotional communication and appropriate responses to
emotion (Halberstadt, 1991). By watching a mother’s emotional behavior, children learn about how to respond to their own and others' emotions appropriately. Considering this, if a child is exposed to primarily negative emotions, they might fail to learn appropriate emotional responses to other's range of emotions. In addition, when children experience heightened personal distress during emotionally charged events, this self-focus can divert attention away from facial and situational information about emotion so that little is learned (Denham, 1998).

**Parental Socialization and Child Socioemotional Adjustment**

In the past several years, considerable research has been conducted which demonstrates a relation between early socialization experiences and children's socioemotional adjustment. Such research highlights the importance of studying features in parental socialization when considering children's developmental and psychological outcomes. In particular, factors such as family emotional climate, communication patterns, and behavior management all have been found to influence children's interpersonal and intrapersonal functioning (Herman & McHale, 1993; Patterson, Reid, & Dishion, 1992; Rueter & Conger, 1998). In terms of emotional climate, parent's emotional climate and emotional expression have both been demonstrated as related to several factors in children’s adjustment including children’s use of coping strategies, their social adjustment, and development of psychopathology. The influence of parents’ emotional climate specifically on children’s coping, including children's use of problem solving skills, has been demonstrated in several studies (Herman & McHale, 1993; Crnic & Greenberg, 1990; Shulman, Serfge-Krenke, & Samet, 1987). This relation is highlighted in a study conducted by Herman and McHale (1993) in which children’s strategies for coping with parental negativity were examined. One-hundred and fifty-two fourth and fifth grade children and their parents were assessed through completion of self-report measures. Analyses indicated that parental warmth
and intimacy were associated with higher rates of children talking to their parents, higher use of child problem solving, and with lower rates of child forgetting. Further, children's problem solving skills were negatively associated with their reports of anxiety and depression. This relation is further demonstrated in a study by Shulman et al. (1987) which compared adolescent coping styles across perceived family climates in sample of high school Israeli students. Analyses indicated that the perception of family cohesion and organization, combined with respect for individual development, were related to a higher level of functional coping in the adolescent. Further, a sense of lack of family support or an over-controlling family climate was related to a higher level of dysfunctional coping in the adolescents.

Parent emotional climate has been found not only to relate to children and adolescent’s functional coping, but also to children’s social adjustment, including use of social problem solving skills, as well as their behavioral functioning (Domitrovitch & Bierman, 2001; Rueter & Conger, 1998). In a study conducted by Domitrovich & Bierman (2001), parenting practices and children’s social adjustment were examined. In this study, two dimensions of parent emotional climate were examined, including warmth/support and hostility/control. Children’s perceptions of their peers were also examined. Findings indicated that warm supportive parenting practices were positively related to prosocial behavior and child social problem-solving, and were negatively related to child aggression. Similar findings were indicated by Rueter and Conger (1998). Together, these findings highlight the importance of family emotional climate in children’s social development, and more specifically, in children’s development of social problem-solving skills.

In terms of the influence of parenting style on children’s adjustment, not only has emotional climate been demonstrated as important, but also parental style of communication.
Specifically, parental communication has been found to influence several aspects of child adjustment including child behavior problems, coping, and social competence (Stright, Neitzel, Sears, & Hoke-Sinex, 2001; Vuchinich et al., 1996). For example, in a study by Stright et al. (2001), investigators examined the effectiveness of parental instruction on children’s coping in school. Fathers, mothers, and their children were visited in their homes and were observed during a structured problem solving task. Findings yielded that parents' manner of instruction predicted children’s attention to instruction and help-seeking in the classroom.

One additional feature of parenting style that has been found to relate to children’s behavioral adjustment is parent management practices. Baumrind’s research with parenting styles highlights this relationship in her formulation of the authoritative-authoritarian-permissive parenting theory (Baumrind, 1967, 1971, 1991). This theory demonstrated that parents who do not adequately meet young children’s needs for nurturance and for limits are less likely to have successful and healthy adolescents. Specifically, Baumrind demonstrated that children of "authoritarian" parents (i.e. parents who show firm control but little warmth) tended to be socially withdrawn, apprehensive, insecure, and low in self control. Children of "permissive" parents (i.e. parents who do not clearly state the rules and consequences for violations, do not consistently enforce rules, are likely to give in to the child) tend to be aggressive. Finally, children of "authoritative" parents (i.e. parents who showed firm control but were also warm) tended to be socially assertive, competent, and socially responsible.

Interactive Processes in Family Interactions

Research has suggested that not only do general parenting practices, such as emotional climate and behavior management, affect children's development, but also that individual parent behaviors may relate to individual child behaviors within specific parent-child interactions. An
early study by Karpowitz (1973) investigated this hypothesis. Findings indicated that, within parent-child interactions, roughly half of the events in eliciting a child's behavior could be found in the immediately preceding event. Further, the other half of the behavior eliciting events could be found in the second and third antecedent events. These findings suggest that much information about a child's behavior can be gained by examining the preceding behavior of the other individual with whom the child is interacting.

The most compelling demonstration of this relation has been suggested by Patterson. Patterson (1982) established the importance of parental antecedents and child consequences in his investigation of molecular process components in parent-child interactions. In his examination of moment-to-moment parent child behaviors, Patterson found that for six out of the ten events in his analysis, the most powerful elicitor of a behavior was an antecedent of the same code category as the target response. For example, the likelihood of a "Physical Negative" antecedent, given a "Physical Negative" behavior was 0.30. Similar investigations have been conducted by other researchers. For example, Williams and Forehand (1984) examined two to eight-year-old children during an observation task at home. Findings indicated that the behavior immediately preceding child "compliance" or "noncompliance" was the best predictor of that particular behavior. More specifically, in terms of antecedents, "compliance" was best predicted by "compliance" and "noncompliance" was best predicted by "noncompliance." Similar findings have also been found in more recent studies (Danforth, Barkley, & Stokes, 1991; Eddy, Leve, & Fagot, 2001).

Other studies have examined this potential link using correlational analyses to analyze co-occurring behaviors during interactions. For example, in a study conducted by Krinsley and Bry (1991), sequential relations were examined among behaviors in clinic families with a
problem adolescent and those in non-clinic families during a family problem solving and family planning discussion. During family planning, it was observed that clinic mothers responded to their adolescents' negative behavior significantly more often with negative behavior and less often with problem solving than the non-clinic families did. Further, clinic adolescents responded to their mothers' negative behavior significantly more often with negative behavior and with less problem-solving than nonclinic adolescents. Bronstein (1994) further demonstrated this relation with her investigation of patterns of dyadic interaction in Hispanic families during a parent-child interaction task. A number of reciprocal patterns of behavior were found in this study. Specifically, findings indicated that warm, supportive parent behavior was positively associated with warm, supportive child behavior and negatively related to submissive child behavior. Further, findings indicated that controlling, restrictive parent behavior was positively related to submissive, compliant child behavior and negatively related to independent assertive child behavior. Similar findings were indicated by Patterson et al. (1992) who highlighted that the pattern of communication between parent and child can create a coercive cycle in which one person’s aggression (including verbal aggression) elicits an aggressive response from another.

Studies have also demonstrated that experimental manipulations of specific stimuli in the parent's behavior results in reductions in the child's maladaptive response rate (Atkinson, 1971; Eisenstadt, Eyberg, & McNeil, 1993; Eyberg, Boggs, & Algina, 1995; Lafreniere & Capuano, 1997; Patterson, 1982). For example, in an experimental manipulation by Patterson (1982) using an ABAB design, findings indicated that the mean rates for target child responses of "Cry," "Whine," "Yell," and "Destructive" were significantly higher during the manipulation of the "mother on the phone" scenario than during baseline periods. This type of relation has also been demonstrated in a number of treatment studies. The most salient example of this is Parent Child
Interaction Therapy (Eyberg & Boggs, 1989), in which child behavior problems are addressed in session by direct coaching of specific parental behavior. Studies examining Parent Child Interaction Therapy have consistently demonstrated its effectiveness in reducing child behavior problems, both in and out of session. Other treatment studies have demonstrated this relation more generally. For example, Forgatch and Toobert (1979) demonstrated that teaching mothers of preschool children better discipline behaviors resulted in greater compliance behavior in the children. As well, Forgatch (1991) demonstrated that those families in their study who improved significantly on parent discipline or monitoring were also characterized by significant reductions in children's antisocial behavior. Dishion et al. (1992) found similar findings when they demonstrated that reductions in child antisocial behavior by the end of the intervention were associated with observed changes in parent discipline practices. The relation between parent discipline behaviors and child behavior problems has continuously been demonstrated in both child and adolescent populations.

Similar findings have been demonstrated for child problems other than behavioral difficulties. Specifically, Lafreniere and Capuano (1997) further demonstrate the relation between specific parent and child behaviors in a study on parental socialization with anxious preschoolers. Lafreniere and Capuano (1997) found significant changes with mothers and children in their treatment study which was designed to moderate mothers' level of control to a more appropriate and less intrusive level. Findings indicated that as a result of changes in the mothers' behavior, children in the treatment group showed an increase in cooperation during the family problem solving task. From the perspective of intervention, gaining further understanding of the sequential link between specific parent behavior and consequential child behavior would
provide more insight into valuable treatment goals and processes targeting child behavior problems.

*Family Problem Solving*

While parent-child interaction style has been found to influence children's adjustment, it has also been found to influence a family's ability to solve problems. These findings have important implications as family problem solving is an essential aspect of everyday family functioning. Rueter and Conger (1995) demonstrated this relation when they assessed 395 two-parent families. Families were observed during a general family discussion; both warm and hostile interaction styles were coded. One year later, another independent set of coders observed the family during a family problem solving task and the family completed a survey assessing their perception of their family's problem solving effectiveness. Results indicated that a hostile interaction style directly predicted destructive problem solving behavior and indirectly and negatively predicted family problem solving effectiveness. A warm interaction style directly related to constructive problem solving behavior and indirectly related to family problem solving effectiveness. Similar findings were found by Forgatch (1989), McColloch, Gilbert, and Johnson (1990), and by Vuchinich, Vuchinich, and Wood (1993). For example, Forgatch (1989) found that negative emotional patterns in family interactions are negatively associated with a good problem solving outcome. Together, these findings suggest that parents who have a harsh interaction style are less likely to be good problems solvers, which has direct implications for their family's ability to resolve significant difficulties.

Family problem solving is an important aspect of parent-child interactions, given that it has been found to relate to children’s behavioral, educational, and psychological adjustment. To examine its effect on children's behavioral functioning, Pakaslahti, Spoof, and Asplund-Peltola
(1998) examined the differences in social problem-solving strategies between the parents of aggressive and nonaggressive girls, specifically examining such factors as parental reprimanding and indifference. Findings indicated that mothers of aggressive girls scored higher on reprimanding and on indifference than the mothers of the nonaggressive girls, who discussed the problems with their daughters more. The parents of the aggressive girls advised their daughters on solving social problems typically only if the daughters directly asked for help. In this study, mothers of aggressive girls typically did not discuss the problems with their daughters or try to solve the problems themselves, but more often diverted the responsibility to people outside the home. Similarly, Forgatch (1989) found that in a group of 4th and 7th graders, a negative relationship was found between family problem solving behavior and verbally and physically aggressive behavior in boys. A similar pattern was also observed by Sanders, Dadds, Johnston, and Cash (1992) and Vuchinich et al. (1993).

Family problem solving skills have also been found to relate to children’s anxiety symptoms. Dadds, Marret, and Raple (1996) examined family discussions in anxious, aggressive, and nonclinic children and their parents, and specific aspects of problem solving were examined. Findings indicated differences between parents in frequency of agreeing with and listening to their child, as well as differences in pointing out positive consequences to their children. Specifically, parents of anxious children were found to be more likely to reciprocate avoidance, while parents of nonclinic children were more likely to agree with and listen to prosocial plans from their child. Together, these findings demonstrate that troubled children with both internalizing and externalizing difficulties are more likely to come from families with less effective means of solving the problems that occur in their everyday life.
It has been suggested that factors associated with family problem solving may also relate to children’s academic achievement. Pianta and Harbers (1996) examined relations between global ratings of mother-child competence, which included maternal support and quality of maternal instruction in a problem-solving simulation, and child academic achievement. Results indicated that mother-child interaction competence correlated significantly with academic achievement at all three grade levels, suggesting that maternal interactions during problem solving scenarios may be a predictor of children's subsequent academic outcomes. Similarly, Pianta, Smith, and Reeve (1991) found that child competence in school correlated with their mother's affection, task orientation, support, and instruction during a problem solving task.

Studies have also demonstrated that parental problem solving is related to children's social adjustment. In an early study by McCombs et al. (1988), adolescents and their mothers were examined. Findings indicated that an "integrating style" of handling conflict (i.e. one in which the parent valued both mutual exchange of information and examination of differences in order to come to a mutually acceptable and often creative solution) had children who were better socially adjusted. More recent studies have replicated these findings. Similarly, Bloomquist, August, and Brombach (1996) found that within a problem solving task, a lower frequency of mothers' close ended questions predicted higher ratings of disruptive behavior with others at school.

Given that children often acquire skills through observation of others in their environment, it could be hypothesized that children's development of problem solving skills may also be affected by their parents' use of effective problem solving strategies. To date, no research has been conducted examining this potential relation. This is surprising given that children's problem solving skills have been found to relate to various aspects of their social and
psychological adjustment (Pettit, Dodge, & Brown, 1988; Quamma & Greenberg, 1994; Vuchinich et al., 1993). One study has, however, indirectly suggested a relation between these two variables. Sanders et al. (1992) found that both the parents of conduct disordered adolescents as well as the adolescents with conduct disorder demonstrated less problem solving skills than comparison families. Unfortunately, analyses from this study did not investigate the potential correlation between these two factors.

While Patterson, Vuchinich, and others have provided great insight into the importance of parental socialization behavior (particularly that affiliated with family problem solving) on children's socioemotional adjustment, little research has been conducted examining the socialization processes associated with family problem solving in physically maltreating families. Given that the way in which physically abusive parents deal with life stressors appears to be characterized by a tendency to react without engaging in the necessary problem solving processes, family problem solving is an important aspect of these families’ socialization processes. Although little research has been conducted in this area, those studies that have been conducted suggest that these parents' abusive behavior may be related to a failure to engage in the necessary problem solving behaviors and that this failure may interfere with abused children's behavioral and psychological outcomes.

Child Physical Abuse and Socioemotional Adjustment

To date, much of the research conducted on child physical abuse has demonstrated its psychological outcomes on children. Physically abused children have been described as having multiple and varied problems, including aggression, withdrawn behavior, social difficulties, and emotional problems (Erickson, Egeland, & Pianta, 1989; Reidy, 1977; Rogeness, Amrung, Macedo, Harris, & Fisher, 1986). For example, Rogeness et al. (1986) conducted a study
comparing children with histories of physical abuse, neglect, and no abuse or neglect. Results indicated physically abused children had an increased frequency of conduct disorder as compared to nonmaltreated children. Similarly, Reidy (1977) found that physically abused children displayed more aggressive behaviors than their nonmaltreated peers on the Behavior Problem Checklist. Further, Hoffman-Plotkin and Twentyman (1984) reported that physically abused children were more aggressive than neglected or nonmaltreated children. Some of the most striking findings about child abuse and its psychological outcomes come from Erickson et al. (1989). Erickson et al. conducted a longitudinal study looking at physically abused children, sexually abused children, neglected children, and children with psychologically unavailable mothers. At 24 months of age, the physically abused children demonstrated more anger and frustration with their mothers and less enthusiasm for the tasks at hand than children in the other groups. By six years of age, physically abused children demonstrated more impulsive behaviors, were more dependent than children in the other groups, and expressed more negative affect. Further, these children were rated by their teachers as extremely inattentive, unpopular, aggressive, and overactive. Together, these studies demonstrate the severity of the behavioral, affective, and social consequences of child physical abuse. It is evident that these children are at an increased risk for psychopathology, often characterized by aggressive behavior, and failure to develop social competence as compared to their same age peers.

In addition to being at risk for affective and behavioral difficulties, recent studies have also demonstrated that physically abused children are at risk for social problem solving difficulties. A study conducted by Smith and Walden (1999) demonstrated that maltreated preschoolers were rated lower by their teachers in social problem solving strategies than their nonmaltreated peers. Further, in an unpublished manuscript, Wilson (1995) demonstrated that
children with histories of childhood physical abuse demonstrated impairments in their social problem solving abilities. Specifically, a history of physical abuse was associated with difficulties in interpretation and response selection. Similar findings were also demonstrated by Trickett (1993) whose findings indicated that physically abused children have poorer interpersonal problem-solving skills than comparison children. Together, these studies demonstrate that physically abused children are at risk for failure to develop effective social problem solving skills.

*Parental Socialization and Child Physical Abuse*

The deficits demonstrated by maltreated children in regard to behavioral and emotional adjustment, and in regard to problem solving skills, lead to questions about the factors in their socialization experience that may lead to these adaptational failures. Research has demonstrated that physically abusive parents engage in a number of behaviors thought to interfere with children’s emotional and psychological adjustment, such as demonstrating a disproportionate amount of negative interactions, including negative affect and communication, with their children (Alessandri, 1992; Burgess & Conger, 1978). For example, Burgess and Conger (1978) found that physically abusive parents were more likely to engage in negative behaviors, such as making comments with an angry intonation, making a disapproving face, or making a disapproving gesture in their relationships with their children. In addition, maltreating (including physically abusive mothers) mothers have been found to demonstrate higher levels of negative parental affect (Crittenden, 1981). Alessandri (1992) demonstrated similar findings in his observations of maltreating parents and their children. Findings indicated that maltreating mothers offered more negative feedback than nonmaltreating mothers. As well, Glaser, Calhoun, and Horne (1999) found that physically abused children expect less positive attention from their
parents than nonabused children. Taken together, these findings suggest that physically abusive parents may engage in socialization behaviors that are more negative and less positive than those of nonmaltreating parents. In general, this demonstrates that physically abusive and neglectful parents may provide atypical socialization experiences for their children by responding to their children's behavior in atypical ways.

*Family Problem Solving and Child Physical Abuse*

The previously discussed studies demonstrate that physically abusive parents appear to express more negative emotion and engage in more negative and less positive behavior in family interactions than nonmaltreating parents do. Unfortunately, few studies have been conducted specifically examining family problem solving in maltreating families. Of the studies that have been conducted in this area, most have utilized self-report measures. These studies have demonstrated that physically abusive parents do demonstrate fewer effective problem solving skills than nonmaltreating parents. For example, Hansen, Pallotta, and Tishelman (1989) found that abusive and neglectful parents were deficient in problem solving skills compared to clinic and community families. In this study they also found that parental problem solving skills did not correlate significantly with parental ratings of child behavior problems. Azar, Robinson, and Hekimian (1984) also supported the notion of a problem solving deficit with their finding that maltreating parents had poorer problem solving skills than comparison families. Similarly, Robyn and Fremouw (1996) examined parental self-report of problem solving styles with reference to rigidity in physically abusive parents. Their results indicated that physically abusive parents evidenced poorer problem skills and that this lack of problem solving tended to be characterized by rigidity. Together, these studies demonstrate that physically abusive parents are failing to engage in behaviors that facilitate effective problem solving in their families.
The Current Study

The Social Learning Theory (Bandura, 1969) suggests that a great deal of learned behavior comes from observation of and reinforcement by individuals in one's immediate environment. This has particular implications when considering socialization experiences that children receive through interactions with their parents. In the case of children who receive atypical socialization experiences during family problem solving, children may imitate and be reinforced for maladaptive means of solving everyday problems. This may place them at risk for social, emotional, and psychological maladjustment. This appears particularly true in the case of physically abusive families.

Within the child physical abuse literature, considerable research has demonstrated that physically abused children are at risk for a variety of negative emotional and behavioral outcomes. However, less is known about factors in their socialization experience that may contribute to these problematic outcomes. Problem solving skills are an important consideration in physically abusive families, given that the way in which physically abusive parents deal with life stressors appears to be characterized by a tendency to react without engaging in the necessary problem solving processes (Cantos et al., 1997). Given this, the investigation of factors associated with family problem solving may contribute not only to current knowledge about factors that may contribute to parents' use of abusive behavior, but also to current knowledge about socialization processes that may relate to physically abused children's adaptational failures in development. Child physical abuse provides an interesting paradigm for assessing problem solving skills, as these families' socialization processes are characterized maladaptive parental responses (characterized by aggression) to everyday family problems which may teach these children atypical means of managing emotionally arousing situations.
The present study investigated family problem solving and interactive processes in physically abusive families using a developmental psychopathology approach. Such an approach enhances understanding of both typical and atypical socialization experiences by allowing an examination of the ways in which differences in socialization processes between maltreating and nonmaltreating families may be related children's behavioral responses in interactions. This study examined parent-child interactions of physically abusive and nonabusive dyads with two primary goals in mind. The first goal was to examine potential group differences in abusive and nonabusive parents' problem solving behavior as well as abused and nonabused children's behavioral responses. The second goal was to examine how specific parental behaviors may relate to specific child behaviors. Specifically, it involved analyzing the moment-to-moment behaviors within these interactions using a sequential analysis approach.

With respect to parental behavior associated with family problem solving, research has suggested that physically abusive parents have a more negative emotional climate and engage in less effective problem solving strategies. As such, it was hypothesized that during the family problem solving interaction task physically abusive parents would (a) use fewer effective problem solving skills than nonabusive parents, (b) engage in fewer supportive/warm behaviors than nonabusive parents, (c) engage in more aversive behaviors than nonabusive parents, and (d) engage in more unproductive problem talk than nonabusive parents.

With respect to child behavior associated with family problem solving, research has suggested that families with less effective problem solving skills have children who demonstrate more emotional and behavioral difficulties. In addition, empirical evidence supports the notion that abused children exhibit more behavioral difficulties and less effective problem solving than nonabused children. As such, it was hypothesized that physically abused children would (a)
demonstrate fewer problem solving skills than nonabused children, (b) demonstrate less cooperative behavior than nonabused children, (c) demonstrate more aversive/oppositional behavior than nonabused children, and (d) demonstrate more withdrawal behavior than nonabused children.

With respect to the moment-to-moment behaviors that occur during interactions, research suggests that aversive parent behaviors often precede aversive child behaviors. As such, it was hypothesized that, across groups, (a) aversive parent behaviors would precede aversive/oppositional child behaviors, (b) aversive parent behaviors would precede withdrawal child behaviors, and (c) supportive/warm parent behaviors would precede cooperative child behaviors.
CHAPTER 2

METHOD

Participants

Thirty-one physically abused children between the ages of 5 and 12 years old and their parents were recruited from parenting programs for maltreating parents. Thirty-one nonmaltreated children and their parents were recruited from community agencies (e.g. Head Start, Wal-Mart). Parents interested in the study were contacted directly by phone or in person and asked about scheduling an interview. Physically abusive families recruited from parenting programs had substantiated child physical abuse by the Department of Children and Family Services (DFCS). Additionally, community families who reported child physical abuse on the Conflict Tactics Scale Parent-Child were also included in the abuse group. Children in the physical abuse group had no history of sexual abuse. Participants in the control group had no maltreatment history of any type (i.e. physical abuse, sexual abuse, neglect) as indicated by parent report, review of Child Protective Service files, and parent report on the Conflict Tactics Scale Parent-Child. Further, parents who scored in the clinical range for child abuse risk on the Child Abuse Potential Inventory were excluded from the control group.

Power Analyses

With regard to statistical power for the analysis of group differences, several studies using observational measures of parental socialization in maltreating families were used to guide the estimation of an effect size (ES) for conducting a power analysis. Effect sizes from these studies were large, ranging from $r = .48$ to $.52$. Based on the range of ES, a power analysis using G-
power (Erdfelder, Faul, & Buchner, 1996) indicated that a sample size ranging from 38 to 46 is necessary to detect a significant relation among variables, with power = .80 and alpha = .05. Using the average large effect size of r=.50, power = .80, and alpha = .05, a power analysis indicated that a sample size of 42 is adequate to detect significant relations among variables.

A separate power analysis was conducted to evaluate the potential sample size needed for the sequential aspect of this analysis. Bakeman and Gottman (1997) recommend the following formula to calculate the minimum number of tallies (i.e. individual codes) needed for adequate power: \(4[K (L+1 power)]\), where K represents the predefined set of codes and L represents the lag effects studied. Based on this formula, with the number of behaviors to be coded in this project as well as the length of the parent-child interactions, it was estimated that a sample size of 40 is adequate to detect significant associations.

**Materials**

All measures used in the current study are provided in the Appendix.

*Family Problem Solving.* Parents and children were administered the *Family Problem Solving Task* (FPST) in which the parent and child were asked to discuss a salient family problem. Before the task began, parents and children brainstormed problem areas in which they tend to disagree (e.g. chores, arguing with siblings, completing homework). As instructed by the interviewer, they were then asked to come to a mutual conclusion about one recent family problem. Next, the interviewer instructed the parent and child to first “Talk together for at least a minute but no more than five minutes about the problem that you’ve had with [problem area].” This was the portion of the interaction task that was used for the current analyses. Detailed instructions for this interaction task can be found in the Appendix.
Child Physical Abuse. The Conflict Tactics Scale – Parent Child (CTS-P/C; Straus & Hamby, 1997) is a 27-item parent report questionnaire that uses an 8-point Likert scale (0=Never happened, 1= once in the past year, 2 = twice in the past year, 3 = 3-5 times in the past year, 4 = 6-10 times in the past year, 5 = 11-20 times in the past year, 6 = more than 20 times in the past year, 7 = not in the past year, but it happened before). The CTS-P/C assesses psychological and physical maltreatment and neglect of children by their parents, as well as nonviolent modes of discipline. Sample questions to assess for physical abuse include “How often have you shook him/her?” and “How often have you beat him/her up, that is you hit him/her over and over as hard as you could?” Sample questions to assess for neglect include “How often were you so drunk or high that you had problems taking care of your child?” This measure has demonstrated internal consistency (.7) and adequate criterion validity (Straus, Hamby, & Finkelhor, 1998).

Child Abuse Potential. The abuse subscale of the Child Abuse Potential Inventory (CAP; Milner, 1986) was administered to parents to assess a wide range of behaviors and attitudes associated with risk for child abuse. Parents were asked to indicate whether they agree or disagree with a series of 95 statements. The CAP Inventory is written at a third-grade reading level and takes approximately 20 minutes to complete. This test has established internal consistency (.92-.96), split-half (.96-.98), and test-retest reliabilities up to 3 months of time (.75-.91). Data provide strong support for the construct validity of the CAP (Milner, 1986).

Demographics. Parents completed a family information sheet to provide demographic information (e.g., years of education, family income, occupational status).

Procedure

Research assistants unaware of group status and study hypotheses interviewed parents and children at the family home. Parents interested in participating were asked to sign a consent
form giving permission for both the child and parent to participate. Consent to videotape was also obtained. In addition, children were asked for verbal assent. Participants were told that they could stop participation at any time and would be paid for the portion of the project that they complete. In addition, families were told that they did not have to answer any questions that made them feel uncomfortable. Following a short rapport-building period, the dyad was asked to participate in the Family Problem Solving Task. During administration of this task, interviewers were trained to look away while the parent and child talked so that they did not influence participants' responses. Interviews were conducted by female research assistants with specialized training in clinical psychology and child development. Following the interaction, the parent and child were separated and administered the remaining measures. This study was conducted as part of a larger study in which parents were paid fifty dollars and children were given a small toy. The total interview required approximately three hours to complete.

Observation and Coding Procedures

Data was coded observationally from the video taped problem solving interactions. The videotaped family problem-solving discussion was coded using a set of behavioral codes derived in part from several well-validated observational systems for assessing family problem-solving interactions (Alexander, 1973; Costigan, Floyd, Harter, & McClintock, 1997; Forehand & McMahon, 1981; Phelps & Slater, 1985; Robin & Foster, 1998). A timed-event sequence coding method was employed (Bakeman & Gottman, 1997). Specifically, each discernible act (i.e. each codable behavior) was coded as it occurred; codes were assigned continuously to all codable behaviors (both verbal and nonverbal) that were emitted by each individual parent and child. Further, the onset and offset times of each code, per second, were recorded as the behaviors occurred. Specific behaviors coded for the parent included: (a) problem solving, (b)
supportive/warmth verbal behavior, (c) supportive/warmth nonverbal behavior (d) aversive verbal behavior, (e) aversive nonverbal behavior, and (f) unproductive problem talk. Behaviors coded for the child included: (a) problem solving, (b) cooperative verbal behavior, (c) cooperative nonverbal behavior, (d) aversive/oppositional verbal behavior, (e) aversive/oppositional nonverbal behavior, and (f) withdrawal behavior. Interaction tasks were coded by raters who were unaware of group status and study hypotheses. Before beginning to code the data, raters were trained to a criterion of 85% agreement (agreements ÷ [agreements + disagreements]) using a series of taped interaction tasks designated for training. In order to evaluate interobserver agreement for the study, 30% of the tapes were independently coded by two coders. Kappas ranging from .87 to .99 were obtained for each of the codes used in the study. For further description of the coding system please refer to the Appendix.
CHAPTER 3

RESULTS

Data Analysis Strategy

An ANOVA procedure was utilized to determine if group differences existed between physically abusive families and control families for each of the variables of interest. Specific parent behaviors analyzed included: (a) problem solving, (b) supportive/warmth verbal, (c) supportive/warmth nonverbal, (d) aversive verbal, (e) aversive nonverbal, and (f) unproductive problem talk. Child behaviors analyzed included: (a) problem solving, (b) cooperative verbal, (c) cooperative nonverbal, (d) aversive/oppositional verbal, (e) aversive/oppositional nonverbal, and (f) withdrawal. The dependent variable in the analysis was the total duration of time, per second, that the parents or children, respectively, engaged in each of these behaviors.

To examine relations between specific parent and child behaviors within interactions, the data from each subject in the two groups was pooled to calculate descriptive statistics for each of the 12 coded categories. Transitional probabilities were then generated (e.g. the number of times that a particular parent behavior preceded a particular child behavior). To analyze the potential associations between parent and child behaviors for significance, loglinear analysis was conducted. This type of procedure has been recommended by Bakeman and Quera (1995) as best suited for event sequence analysis because of violations of sampling independence and enhanced Type I error that can occur with some more traditional tests for sequential analysis. This type of analysis reduces the Type I error associated with conducting sequential analysis and is not affected by overlapped sampling which violates independence.
In conducting the log-linear analysis, analyses examined whether expected frequencies (based on the log-linear formula) were different from the actual observed frequencies. Large differences between expected and observed frequencies (i.e. greater than chance) provided support that some of the behaviors evaluated (i.e. particular antecedent/target behavior pairs) were associated. This was evaluated using the $G^2$ statistic. Further, adjusted residuals were calculated for each antecedent/target sequential pair to determine significance for that particular combination of behaviors. Significant adjusted residuals were those that had a value greater than 1.96 (consistent with significance criteria for a z-score).

**Demographics**

With regard to demographic characteristics, there were no group differences between the abuse and control groups on child age, $F(1,60) = .67, p = .41$, child race, $X^2 = 1.1, p = .29$, or child gender, $X^2 = .17, p = .68$. There were, however, group differences on family income $F(1, 60) = 18.44, p < .00$ (abuse = 1371, control = 2610).

**Child abuse potential**

With regard to child abuse potential assessed through the Child Abuse Potential Inventory, findings indicated significant group differences between the abuse and control group $F(1, 60) = 21.38, p < .00$ (abuse = 204, control = 87). Total instrument scores of 166 or greater indicate that the respondent is at risk for child abuse (Milner, 1994).

**Group differences in parent behavior**

A summary of means and standard deviations can be found at the end of this chapter in Table 1.

**Parent problem solving.** A one-way ANOVA was conducted to determine group differences between abusive and control parents on duration of problem solving behavior.
engaged in during the problem solving task. The between-subjects variable was Group (i.e. abuse, control). A main effect for Group emerged, $F(1, 60) = 11.42, p < .01$, indicating that abusive parents engaged in less problem solving behavior ($M = 13.35, SD = 11.75$) than control parents ($M = 29.58, SD = 24.01$).

*Parent supportive verbal behavior.* A one-way ANOVA was conducted to determine group differences between abusive and control parents on duration of supportive verbal behavior. Findings were nonsignificant, $F(1, 60) = .237 p = .13$, indicating that abusive and control parents did not differ in supportive verbal behavior.

*Parent supportive nonverbal behavior.* A one-way ANOVA was conducted to determine group differences between abusive and control parents on duration of supportive nonverbal behavior. A main effect for Group emerged, $F(1, 60) = 3.85, p = .05$, indicating that abusive parents engage in less supportive nonverbal behavior ($M = 4.97, SD = 10.40$) than control parents ($M = 11.32, SD = 14.73$).

*Parent aversive verbal behavior.* A one-way ANOVA was conducted to determine group differences between abusive and control parents on duration of aversive verbal behavior. Findings were nonsignificant, $F(1, 60) = .25, p = .61$, indicating that abusive and control parents did not differ in aversive verbal behavior.

*Parent aversive nonverbal behavior.* A one-way ANOVA was conducted to determine group differences between abusive and control parents on duration of aversive nonverbal behavior. Findings were nonsignificant, $F(1, 60) = .00, p = .95$, indicating that abusive and control parents did not differ in aversive nonverbal behavior.

*Parent unproductive problem talk.* A one-way ANOVA was conducted to determine group differences between abusive and control parents on duration of unproductive problem talk.
Findings were nonsignificant, $F(1, 60) = 2.50, p = .12$, indicating that abusive parents and control parents did not differ in unproductive problem talk.

**Group differences in child behavior**

A summary of means and standard deviations can be found at the end of this chapter in Table 2.

*Child problem solving.* A one-way ANOVA was conducted to determine group differences between abused and control children on duration of problem solving behavior. The between-subjects variable was Group (i.e. abuse, control). Findings were nonsignificant, $F(1, 60) = 1.78, p = .18$, indicating that abused and control children did not differ in their demonstrated level of problem solving skills.

*Child cooperative verbal behavior.* A one-way ANOVA was conducted to determine group differences between abused and control children on duration of cooperative verbal behavior. Findings were nonsignificant, $F(1, 60) = .06, p = .81$, indicating that abused and control children did not differ in cooperative verbal behavior.

*Child cooperative nonverbal behavior.* A one-way ANOVA was conducted to determine group differences between abused and control children on duration of cooperative nonverbal behavior. A trend for Group emerged, $F(1, 60) = 3.04, p = .08$, indicating that abused children engaged in less cooperative nonverbal behavior ($M = 12.65, SD = 17.83$) than control children ($M = 24.32, SD = 32.76$).

*Child aversive/oppositional verbal behavior.* A one-way ANOVA was conducted to determine group differences between abused and control children on duration of aversive verbal behavior. Findings were nonsignificant, $F(1, 60) = .44, p = .51$, indicating that abused and control children did not differ in aversive verbal behavior.
Child aversive/oppositional nonverbal behavior. A one-way ANOVA was conducted to determine group differences between abused and control children on duration of aversive nonverbal behavior. Findings were nonsignificant, $F(1, 60) = 1.00, p = .32$, indicating that abused and control children did not differ in aversive nonverbal behavior.

Child withdrawal behavior. A one-way ANOVA was conducted to determine group differences between abused and control children on duration of unproductive problem talk. Findings were nonsignificant, $F(1, 60) = .51, p = .48$, indicating that abused children and control children did not differ in withdrawal behavior.

Sequential associations among parent/child behaviors

To examine potential associations between specific parent and child behaviors within interactions, behavior sequences were analyzed with a lag of 1, indicating that for every behavior that occurred in each second, a “tally” was generated representing the pair of that particular “antecedent” behavior with the “target” behavior that occurred in the next 1 second. Following this, a contingency table was generated that represented the sum of the tallied frequencies of every two-event chain (i.e. every possible antecedent/target pair) that occurred across all interactions. To test for significance, the data from this table was submitted to a loglinear analysis. Results revealed that expected frequencies (based on the log-linear formula) were different from the actual observed frequencies, suggesting that significant behavioral associations were present in the data, $G^2 = 520.94, p < .00$. Given the significance of the initial $G^2$, adjusted residuals were calculated to determine significance for each antecedent/target pair. Given that only parent/child behavioral associations were of interest to this study, significant adjusted residuals involving the same person’s behavior as the antecedent and target (i.e.
parent/parent or child/child behavioral associations) were not interpreted. The full adjusted residual table can be viewed at the end of this chapter in Table 3.

*Parent behaviors followed by child behaviors.* When examining parent/child behavioral sequences (i.e. analyzing parent behavior as the antecedent and child behavior as the target), none of the specific hypothesized associations were statistically significant. Specifically, the adjusted residuals were nonsignificant for parent aversive (verbal or nonverbal) behavior followed by child aversive (verbal or nonverbal) behavior, parent aversive (verbal or nonverbal) behavior followed by child withdrawal behavior, and parent supportive (verbal or nonverbal) behavior followed by child (verbal or nonverbal) cooperative behavior. Given that none of the hypothesized adjusted residuals were significant, no further analyses were conducted to analyze the importance of particular associations to the loglinear model.

While none of the hypothesized behavioral sequences were statistically significant, significant adjusted residuals for other sequences emerged. Given that those findings were consistent with the theoretical tenets of this study, they will be discussed in this paper. Specifically, adjusted residuals (AR) for parent behavior preceding child behavior indicated that parent problem solving behavior was a statistically significant antecedent for child cooperative nonverbal behavior (AR=5.56) and child withdrawal behavior (AR = 3.17). Parent supportive verbal behavior was a significant antecedent for child problem solving behavior (AR = 2.04). Parent supportive nonverbal behavior was a significant antecedent for child problem solving behavior (AR = 6.87) and a significant negative antecedent for child withdrawal behavior (AR = -2.74). Finally, parent unproductive behavior was a significant antecedent for child cooperative verbal behavior (AR = 5.22), child oppositional verbal behavior (AR = 3.94), and child withdrawal behavior (AR = 4.69).
Child behavior followed by parent behavior. While there were no specific hypotheses generated using child behavior as the antecedent and parent behavior as the target, several significant relations emerged in this area as well that will be discussed. Specifically, child problem solving behavior was found to be a significant antecedent for parent problem solving behavior (AR = 3.83), parent supportive verbal behavior (AR = 3.84), parent supportive nonverbal behavior (AR = 3.64), and parent aversive verbal (AR = 2.39). Child cooperative verbal behavior was found to be a significant antecedent for parent problem solving behavior (AR = 2.09) and parent supportive verbal behavior (AR = 2.62). Child cooperative nonverbal behavior was found to be a significant antecedent for parent problem solving behavior (AR = 5.53). Child oppositional nonverbal (but not verbal) behavior was found to be a significant antecedent for parent problem solving behavior (AR = 2.13). Finally, child withdrawal behavior was found to be a significant antecedent for parent aversive verbal behavior (AR = 2.35) and parent unproductive problem talk (AR = 5.54). A summary list of significant sequential findings can be found at the end of this chapter in Table 4.

Table 1. Means and standard deviations of parent behavior by group

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<th>SD</th>
<th>PSV Mean</th>
<th>SD</th>
<th>PSNV Mean</th>
<th>SD</th>
<th>PAV Mean</th>
<th>SD</th>
<th>PANV Mean</th>
<th>SD</th>
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PPS = Parent Problem Solving, PSV = Parent Supportive Verbal, PSNV = Parent Supportive Nonverbal, PAV = Parent Aversive Verbal, PANV = Parent Aversive Nonverbal
* Indicates significant group differences
Table 2. Means and standard deviations of child behavior by group

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<th>CCV SD</th>
<th>CCNV Mean</th>
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<td>.00</td>
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*Indicates significant group differences

Table 3. Contingency Table for sequential association adjusted residuals

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PPS = Parent Problem Solving, PSV = Parent Supportive Verbal, PSNV = Parent Supportive Nonverbal, PAV = Parent Aversive Verbal, PANV = Parent Aversive Nonverbal


*Parent/child residuals significant at p < .05
Table 4. Summary of significant findings for sequential analyses

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<th>ANTECEDENT BEHAVIOR</th>
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CHAPTER 4
DISCUSSION

The present study was conducted in accordance with the notion that parent-child interaction patterns are important in fostering children’s healthy social and emotional development. This study examined factors related to family problem solving in physically abusive families. Family problem solving is an important aspect of parent-child interactions in these families, as failure to solve problems related to daily living has been hypothesized to result in frustration or inability to cope, leading to deviant parental behavior such as aggression or neglect (Wolfe et al., 1981). Family problem solving skills have also been found to have implications for children's development as they have been found to relate to children’s intrapersonal and interpersonal adjustment (Dadds & Brisbane, 1987; Forgatch, 1989; McCombs et al., 1988; Pianta & Harbers, 1996).

While several studies have been conducted examining family problem solving scenarios in clinical populations, relatively little research has been conducted examining these socialization processes as they occur in physically abusive families. The present study investigated family problem solving and interactive processes in physically abusive families using a developmental psychopathology approach. Such an approach enhances understanding of typical and atypical socialization experiences by examining ways in which different socialization behaviors may relate to children's behavioral responses in interactions. Specifically, this study examined parent-child interactions of physically abusive and nonabusive dyads with two primary goals in mind. The first goal was to examine potential group differences in factors related to problem solving in
abusive and nonabusive parents as well as to examine abused and nonabused children's behavioral responses. The second goal was to investigate how specific parental behaviors may relate to specific child behaviors within interactions. Specifically, it involved analyzing the moment-to-moment behaviors within these interactions using a sequential analysis approach. The investigation of family problem solving in abusive families may contribute not only to current knowledge about factors that may contribute to parents' use of abusive behavior, but also to knowledge about factors influencing abused children's adaptational failures (e.g. aggressive behavior, poor peer relations). As well, specific information gained about interactive processes that may occur between parents and children within interactions may inform current literature about aversive and coercive family processes. Together, this information can inform the development of intervention programs for abusive families as well as other families characterized by coercive parent-child interactions.

**Group Differences in Parent Behavior**

As hypothesized, abusive parents demonstrated fewer problem solving skills than nonabusive parents within interactions. This suggests that abusive parents may lack some of the basic problem solving skills that could assist them in resolving everyday problems with their children. This is consistent with past literature based on self-report measures (Hansen et al., 1989; Azar et al., 1984; Robyn & Fremouw, 1996) and supports one potential hypothesis about why physical abuse may occur in families. Specifically, it supports the notion that a failure to solve problems related to daily living can result in frustration or inability to cope, leading to deviant parental behavior such as aggression or neglect (Wolfe et al., 1981). These findings have important implications not only for parents, but for children’s adjustment as well. Specifically, as children observe their parents and participate with them in routine problem situations at home,
children learn behavioral and communication strategies, ways of thinking about such situations, and also ways of regulating affect (Vuchinich et al., 1996). This suggests that a lack of family problem solving within abusive families could have important implications for abused children’s adjustment. This supports the notion that teaching parents effective problem solving skills is an important line of intervention with physically abusive families.

Related to family problem solving is the affective response that a parent provides to their child. With regard to this, this study hypothesized that physically abusive parents would engage in less supportive behavior with their children than nonabusive parents. This hypothesis received partial support. Specifically, findings indicated that abusive parents engage in less nonverbal support with their children than nonabusive parents; however, no group differences were found with regard to parental verbal support behavior. This would suggest that physically abusive parents do have some working knowledge about supportive statements that they can use with their children, but that they have much more difficulty accompanying this speech with nonverbal warmth and empathy. It possible that, while this study took measures to minimize the effects of the interviewers’ presence on the parents’ behavior with their children, abusive parents still may have felt compelled to say to their children what they knew was expected and socially accepted. This is consistent with reports from child psychologists who often state that, while it can be easy to teach parents to say the right things to their children (e.g. “That’s good,” “What do you think about that?”), it is often much more difficult to teach parents who lack natural warmth and nonverbal support how to respond to their child with true warmth and positivity in their nonverbal expressions (Openshaw, Mills, Adams, & Durso, 1992).

This study hypothesized that physically abusive parents would engage in more aversive behavior than nonabusive parents. This finding was not supported by this study. Specifically,
physically abusive parents did not engage in more verbal or nonverbal aversive behavior than nonabusive parents. This is surprising given that other research has found that aversive behavior is often a characteristic feature of child abuse (e.g. Alessandri, 1992; Burgess & Conger, 1978; Crittenden, 1981). Given that multiple studies have found that abusive parents are more aversive than nonabusive parents within interactions, it is possible that this finding may have been a function of the type of task administered. Other studies that have found group differences on this variable have tended to incorporate more neutral or positive interaction tasks with the families (e.g. talking about a time that they went on a vacation, playing together). This task involved the parent and child talking about a problem, which is inherently more aversive. Given this, it may be that abusive and nonabusive parents both engage in moderate levels of aversive behavior when talking about family problems and that the differences between groups tend to be found in more neutral interaction settings.

Hypotheses also predicted that abusive parents would engage in more unproductive problem talk than nonabusive parents. Again, results did not support this hypothesis. It is possible that these results may have been impacted by the variety of subcodes contained within the “unproductive talk” coding category. Specifically, this coding category incorporated a variety of subcodes, ranging from “excessive explanation” to “framed questions” and “bickering.” It is possible that, while parents in both groups engaged in unproductive behavior, their unproductive behavior could have manifested itself in different ways. For example, abusive parents may have engaged in back and forth bickering and used framed questions such as “You know you were bad, right?” Conversely, nonabusive parents may have engaged in “over teaching” through excessive explanation. Both of these codes would have been considered a form of unproductive behavior according to the coding system used, but potentially, each could
result in a very different socialization experience for the child. Further analyses would be needed to begin to answer some of these questions.

*Group differences in child behavior*

With regard to group differences in child problem solving behavior, findings indicated that abused children do not differ from nonabused children in problem solving skills. Given that several studies have demonstrated that abused children are lacking in social problem solving skills (Smith & Walden, 1999; Trickett, 1993; Wilson, 1995), this finding is surprising. It may be that results were impacted by age effects. Specifically, given the relatively low occurrence of problem solving behaviors across children in both groups, it is possible that the 5-12 year old children assessed in this study were not cognitively able to use the level of problem solving skills that were measured through this coding system.

Findings partially supported the hypothesis that abused children would engage in less cooperative behavior than nonabused children. Specifically, a trend was found that indicates that abused children were less nonverbally cooperative within interactions; however, there were no group differences on verbal cooperative behavior for these children. This may have been a function of the level of verbal participation by the children in the study. Given the relatively little verbal participation in children across groups, there appeared to be less opportunity to observe variation in child verbal behaviors between groups. Analysis of nonverbal behaviors, however, did demonstrate that abused children were less cooperative and connected with their parents than nonabused children. This is consistent with past literature that demonstrates that physically abused children demonstrate less cooperative behavior, more oppositional behavior, and more withdrawal than other children (Erickson et al., 1989; Reidy, 1977; Rogeness et al., 1986).
Consistent with findings for aversive parent behavior, no group differences were found for children for aversive/oppositional behavior. This was surprising, given the number and variety of behavioral difficulties that abused children have been found to exhibit. This finding may have been a reflection of the type of task administered and abused children’s resulting adaptation to their social environment. Specifically, in heated discussions of family problems (especially problems that relate to the child, as was the case in most of the problems discussed in this task), abused children may have learned through experience to inhibit their own aversive behavior. This is potentially adaptive for abused children, given that their own aversive behavior during such discussions could put them at risk for abuse. It is possible that, were this study to have coded child behaviors in other settings where the children were at less perceived risk (e.g. when they were being privately interviewed by the examiner), more aversive behavior would have been present in abused children.

In regard to child withdrawal behaviors, findings also indicated no group differences. Previous research supports that, as is characteristic of the nature of internalizing problems, child internalizing behaviors are more difficult for observers to detect than aversive behaviors (Grills & Ollendick, 2003; Hope et al., 1999). This may have influenced findings in this study, as it may have been difficult for coders to identify child withdrawal behavior. Another possibility for this finding is, given the generally high levels of unproductive talk across parents in the study, withdrawal may have been a response to the generally unproductive behavior of the parent. Consistent with the discussion of unproductive parent behavior, withdrawal could serve a different function for the child, depending on their experience with the parent. If a child withdraws by daydreaming in response to a parent’s tendency to “over talk” but in a supportive manner, this behavior would be less maladaptive than for a child who learns to dissociate from a
parent who is bickering with them or framing them into saying they were “bad” or wrong. Again, further analysis of subcodes would be needed to tease apart these questions.

*Sequential relationships between parent and child behavior*

*Parent behavior followed by child behavior.* With regard to specific hypotheses, none of the predicted sequential associations were found between parent and child behaviors. Specifically, findings were nonsignificant for parent aversive (verbal or nonverbal) behavior followed by child aversive (verbal or nonverbal) behavior, parent aversive (verbal or nonverbal) behavior followed by child withdrawal behavior, or parent supportive (verbal or nonverbal) behavior followed by child (verbal or nonverbal) cooperative behavior. The lack of findings with regard to parent aversive behavior followed by child aversive/withdrawal behavior are surprising, given the research that suggests a link between these behaviors (Patterson et al., 1992). These results were likely a function of the relatively minimal occurrence of aversive behaviors during these problem solving tasks. As discussed earlier, parents may have engaged in less aversive behavior than may be present in their daily interactions with their children because of social desirability. The minimal occurrence of aversive behavior likely led to difficulties detecting any possible targets of this behavior when considering it as an antecedent.

Findings also indicated that there were no relations between parent supportive (verbal or nonverbal) behavior and child cooperative (verbal or nonverbal) behavior. This is surprising, given that treatment literature suggests that developing more positive and attentive behavior in parents leads to more cooperative behavior in children (e.g., Eyberg & Boggs, 1989; Lafreniere & Capuano, 1997; Patterson, 1982). It is possible that, given the high-risk sample assessed, parents in the study are less supportive at home than they were during this interaction task, and children responded to their parents on the basis of their learning history with the parent (and not
based on the temporary interaction with their parent during the task). However, data is not currently available to support this notion. Further analysis of naturally occurring behavior at home would be needed to answer this question. Another possibility is that parent and child supportive/cooperative behaviors are more associated with other variables involving active use of skills, such as problem solving.

While none of the hypothesized relationships were significant, several other significant associations were found using parent behavior as the antecedent and child behavior as the target. Specifically, with regard to parent problem solving, findings indicated that a parent’s problem solving behavior tended to be followed by their child’s cooperative nonverbal behavior. Given that significance was found for child cooperative nonverbal and not for cooperative verbal behavior, this suggests that interactions characterized by parent didactic experiences may be accompanied by compliance, but also less verbal engagement of the child. It is possible that these experiences provide children with an environment in which they absorb information and learn from their parent, but where they tend to wait until another time to practice the skills being learned. As well, findings indicated that parent problem solving behavior tends to be followed by child withdrawal behavior. This is potentially informative for treatment, as it suggests that children may be cooperative, but also be less engaged with their parents during these more didactic experiences.

Another finding involved parent supportive behavior. Specifically, findings indicated that a parent’s supportive behavior (both verbal and nonverbal) is often followed by their child’s use of problem solving skills. This is consistent with the findings described above and with studies suggesting that a supportive environment may be more important for a child’s development of specific skills (often verbal skills) than ongoing didactic experiences (Edwards, Shipman, &
Brown, in press). As suggested above, it may be that while children learn through didactic and modeling experiences, they need a contextually supportive environment (with less didactic) to actually practice using these skills. As well, findings indicated that parent supportive nonverbal behavior was a significant negative antecedent for child withdrawal behavior. This is consistent with expectations and supports the notion that nonverbal support by a parent is a particularly important variable in engagement with children.

With regard to parent unproductive behavior, findings indicated that parent unproductive behavior tends to be followed by several child behaviors, including child cooperative verbal behavior, child oppositional verbal behavior, and child withdrawal behavior. Given the variety of behaviors that were considered unproductive for parents in this study, it is no surprise that children provided a variety of responses. As noted earlier, some of the unproductive codes, such as excessive explanation, could have been more an example of an “over teaching” experience, accompanied by a generally supportive affect. In this instance, as the child perceives a generally positive experience with the parent (even if the experience is boring), it is likely that they may respond with accompanying cooperative verbal behavior. Conversely, such factors as parent bickering or mind reading could have been those that lead children to withdraw from their interaction with their parent or respond with oppositional behavior. This is consistent with clinical research which suggests that changing a parent’s pattern of ineffective verbal engagement with their child (e.g. give multiple or indirect commands, over explaining their own perspective, lack of responsiveness to child’s disclosure of emotion) often leads to improvements in child behavior problems as well as reduction in internalizing problems (Eisenstadt et al., 1993; Eyberg, Boggs, & Algina, 1995; Vuchnich et al., 1996).
Child behavior followed by parent behavior. While no specific hypotheses were generated based on child behavior preceding parent behavior, several results emerged that were theoretically consistent with the study’s investigation. Specifically, with regard to child problem solving behavior, results indicated that child problem solving behavior was a significant antecedent for parent problem solving behavior. This is an interesting finding, given that the converse scenario (parent problem solving as an antecedent for child problem solving) was hypothesized. As discussed earlier, it may be that a supportive context is most important for a child to begin to use and experiment with new problem solving skills. Once the child begins to engage in this behavior, it may be more likely that a parent will take the child’s lead and follow by using the same type of skill. Consistent with this is the finding that child problem solving behavior was often followed by the parent’s supportive verbal and nonverbal behavior. This is consistent with the notion that effective and adaptive problem solving by a child is likely accompanied by a generally supportive presence by the parent, and that a child’s use of effective skills likely reinforces a parent’s probability of following up with an affectively equivalent response (Eddy et al., 2001; Patterson, 1982; Williams & Forehand, 1984).

Surprisingly, analyses also indicated that child problem solving was also followed by parent aversive verbal behavior. This finding may have been influenced by the fifty percent of abusive parent-child interactions that were included in this sample. Given that we know that abusive parents lack problem solving skills, it is possible that some parents, particularly abusive parents, are failing to recognize and reinforce their child’s own use of effective problem solving skills. This may be part of the coercive process that exists in these families, where children do not receive positive and reinforcing responses from their parents for their adaptive use of skills.
If this were the case, it would eventually be expected that children at later ages would discontinue their use of problem solving skills because of lack of reinforcement.

With regard to child cooperative behavior, findings indicated that child cooperative (verbal and nonverbal) behavior was a significant antecedent for parent problem solving behavior. This finding suggests that not only is a supportive and cooperative parental context important in fostering children’s active use of problem solving skills, but that the converse situation is also true. Specifically, these results suggest that when children are cooperative, this provides a context in which parents are more likely to use and model effective problem solving skills. In addition, findings indicated that child cooperative verbal behavior was a significant antecedent for parent supportive verbal behavior. This is clinically relevant, as it suggest that cooperative child behavior may promote more positive parenting. It is also consistent with social learning and family systems theory, which highlights that positive behaviors from one member of a family or group can be reinforcing and promote positive behavior in others.

With regard to child opposition, findings indicated that child oppositional nonverbal behavior was a significant antecedent for parent problem solving behavior. This suggests that parents may respond to their child’s oppositional behavior with verbal problem solving or talking through the difficult scenario. While this may be considered adaptive in a problem solving sense, current child treatment literature might suggest that a large amount of parental verbal engagement surrounding a child’s misbehavior could potentially reinforce that behavior and cause it to continue.

Finally, with regard to child withdrawal behavior, findings indicated that child withdrawal behavior was a significant predictor for parent aversive verbal behavior and parent unproductive behavior. According to these findings, children who respond to their family
contexts by withdrawing are more likely to receive aversive messages from their parents as well as less productive verbal engagements. Consistent with previous findings investigating parent behavior as an antecedent, unproductive verbal engagements by the parent may promote further withdrawal behavior from the child. This could promote a cycle with the child in which the parent becomes progressively more aversive and unproductive over time, and the child’s behavior becomes progressively more withdrawn.

While few of the sequential findings supported the specific hypotheses initially presented, most of the findings that did emerge were consistent with the same theoretical tenets. In general, findings indicated that, with regard to parenting behavior, a supportive environment may be as or more important in fostering development of new verbal skills in children than actual verbal modeling of those skills by the parent. As well, many findings emerged regarding child behavior predicting parent behavior. This is highly informative, particularly for clinical settings, as it suggests that parents’ behavior is often contingent on the behavior of their child. Further, if changes in the child’s behavior can be brought about, positive parent behavior will likely be reinforced.

Limitations and Considerations for Future Research

While this study provides an interesting picture of some implications of parent and child interaction behavior in abusive families, some limitations do exist. One limitation of this study was its use of only one interaction task to assess constructs of interest. Future studies would benefit from the inclusion of more measures for each of the variables of interest. For example, an assessment of parent aversive behavior would ideally be assessed through both observational and self-report measures, or through observation of parent aversive behavior across a number of settings.
In relation to the Problem Solving Task, it may be helpful to examine parents and their children in more natural problem solving settings at home, as individual responses in this study may have been influenced by the fact that a past (and thus less salient), as opposed to a current problem experience, was discussed. Further, observation through a more naturalistic task might lead to more representative interactions of abusive mothers and their children, as individual responses in this study may have been influenced by social desirability or the initial discomfort of being observed.

Based on the findings in this study, several considerations exist for future directions in the study of family problem solving and interactive processes in abusive families. Future research should examine problem solving in older children. Additionally, a larger sample size would allow for age differences to be examined in this study (e.g. examining child problem solving differences in children ages 6-8 vs. 9-12). In addition, future research in this area should incorporate analysis of more specific behaviors to determine more discrete differences between abusive and nonabusive families’ problem solving skills and socialization practices. For example, future research should examine whether the types of unproductive behavior used when problem solving differ between abusive and nonabusive parents. As well, analyses should examine whether parent-child interaction patterns during problem solving differ between abusive and nonabusive families.

Future research should also examine the possible relations between family problem solving and children’s social and psychological adjustment. This is important, given that we know that abusive parents fail to engage in necessary problem solving skills and abused children are at risk for problems in their peer relations and psychopathology. An examination of these factors would contribute further to the examination of processes in psychological development.
that may contribute to abused children's social and psychological maladjustment, and may also contribute to the development of future interventions for abusive families.
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APPENDIX A

Problem Solving Task Instructions
Step 1 Instructions for finding a salient problem area:

"Every family has some kind of problem and something that they argue about (or even just something that they just disagree about).

To parent "What are some things that you and [child's name] argue/disagree about?"

To child "Do you agree that those are things that the two of you argue/disagree about? Are there any other things you can think of that you and your mom/dad argue (or disagree) about?"

If they come up with a specific argument (e.g. "Last week we...), generalize it to the larger problem issue (e.g. "So you and your mom argue about chores.

If needed for clarification about the BIGGEST PROBLEM AREA for them:

To mother "Which one do you think the two of you argue MOST about?"

To child "Which one do you think the two of you argue MOST about?"

Based on responses generated, decide which problem area seems the most salient to both the parent and the child. Then state, "So it sounds like both of you think that [state problem] is one of the biggest problems (or things that you argue/disagree about). Do you agree?"

From this, decide on a problem that seems the most salient for both the parent and the child. Use this when administering the following instructions.

Step 2 Instructions:

“Now I want for you to talk together for at least a minute but no more than five minutes about the problem (argument/disagreement) that you’ve had with [state problem area] (stop them if time exceeds 3-4 mins. so that you can go on).”

NOTE TO INTERVIEWER: We want to see this problem discussed individually from the parent and the child's perspective. If you did not clearly see the PARENT talk about the problem from her/his perspective, ask the "Parent follow-up question" below. If you did not clearly see the CHILD talk about the problem from her/his perspective, ask the "Child follow-up question" below. If you did clearly see either or both of these things, you can skip the relevant follow-up question. When in doubt, ask the question(s).

If the PARENT did not CLEARLY talk about the problem from his/her perspective, ask:

“ Now I want for you to go back and talk about the problem again. First [Mom/Dad’s name], I want you to talk with [Child’s name] about the problem (argument/disagreement) as you see it. Talk with him/her to help him/her understand your side of the problem. Again, talk for at least a minute but no more than five minutes (stop them if time exceeds 3-4 mins. so that you can go on).”

If the CHILD did not CLEARLY talk about the problem from his/her perspective, ask:

“Now [Child’s Name], I want you to talk with your mom/dad to help him/her try to understand what you think about the problem (argument/disagreement) with [state problem]. Tell him/her how you feel about it. [Mom's name], I just want you to respond as you normally would if he/she started telling you about this problem (if needed, restate the problem again) (stop them if time exceeds 3-4 mins. so that you can go on to the next task).”

Step 3 Instructions:

“Now talk together about how you can solve this problem in the future (stop them if time exceeds 3-4 mins. so that you can end the task).”
APPENDIX B

Problem Solving Coding System
PROBLEM SOLVING CODING SYSTEM

I. Parent Codes
   1. Problem Solving Parent
      • Includes clarification requests, opinion probes, plan suggestions/solution, compromise, summary/paraphrase, facilitative problem questions.
   2. Supportive Parent - Verbal
      • Includes accepting responsibility, agreeing/assent/echo, approving, empathy/validation, feeling statements.
   3. Supportive Parent - Nonverbal
      • Includes smile/laugh, affectionate physical behavior, attentive listening.
   4. Aversive Parent - Verbal
      • Includes attacking questions, negative commands, negative disagreeing, disapprove/criticize, aversive mind reading, physical aggression, put-downs, sarcasm, teasing/taunting, threatening, denying responsibility, no response/ignoring.
   5. Aversive Parent - Nonverbal
      • Includes negative affect (negative facial expressions).
   6. Unproductive Problem Talk
      • Includes solution listing, one-sided commands, excessive explanation, framed questions, giving in, bickering, neutral mindreading.

   II. Child Codes
   1. Problem Solving Child
      • Includes acknowledging cause/role, clarification requests, opinion probes, plan suggestions/solution, compromise, summary/paraphrase, facilitative problem questions, problem identification.
   2. Cooperative Child - Verbal
      • Includes accepting responsibility, agreeing/assent, emotion talk.
   3. Cooperative Child - Nonverbal
      • Includes compliance, smile/laugh in a connected way, attentive listening, affectionate physical behavior.
   4. Aversive/Oppositional Child - Verbal
      • Includes negative disagree, put-downs, sarcasm, disruptive statements, denying responsibility, threatening, criticism, testing/challenging.
   5. Aversive/Oppositional Child - Nonverbal
      • Includes cry/whine, disruptive behavior, noncompliant, physical aggression.
   6. Withdrawal
      • Includes no response/ignore, self-stimulation, turn off (a “don’t bother me” attitude), negativism, looking away, and unrelated talk.
I. PARENT CODES

Problem Solving Parent

Parent behaviors that facilitate productive discussion and resolution of the problem. Also, parent behaviors that help work through and teach the child adaptive skills/thought processes to solve problems. Parent is engaging child in a connected way.

Typically includes statements that reflect joint/mutual discussion and respect for the child, such as "Lets...," "How about we...," "What about...," "How about...", "What do you think...". Further, involves statements/questions that create a learning experience for the child. This is in contrast to statements that target the child and are not engaging him/her, such as "You need to...," "You should...," "You are just too..." in a manner where the child is disconnected from the mutual learning experience. These latter codes would be coded as Aversive if said in an aversive voice tone/manner, or Unproductive if said in a neural manner.

Includes clarification requests, opinion probes, plan suggestions, solution/compromise, summary/paraphrase, facilitative problem questions, perspective sharing, problem identification.

Clarification Request (CR)

Apparent when a speaker asks a previous speaker to repeat or to further explain what they just said. This may be either because they want clarification, did not understand, or simply did not hear what was said.

Examples: a) "What did you say?"
     b) Asking a specific question about what the speaker just said.
     c) "Huh?" or "Hmm?" when stated in the context of wanting the speaker to repeat or to clarify what they just said.

Opinion Probe (OP)

Apparent when the speaker asks a question that is intended to elicit communication about the listeners' thoughts in a genuine attempt to understand the listener. An Opinion Probe should give the listener the opportunity to respond openly about their own thoughts.

Examples: a) "What do you think about changing your curfew hour?"
         c) "Where would you like to go for a family vacation?"
         d) "What is on your mind?"
         e) “What do you think we should do about…?”

Plan Suggestion/Solution (PS)

Apparent when a speaker makes a unilateral suggestion (i.e. a suggestion that does not involve the speaker) about how a problem might be solved or what the listener might do. It should be a sincere suggestion made by the speaker that is meant to help others in alleviating the problem.
Examples: a) "Why don't you take a vacation to Bogotá. It might help you to relax."
b) "Try getting up ten minutes earlier so you do not have to rush."
c) "Why don't the two of you take turns riding the bicycle. That way you both will get a chance to ride."

Compromise (CO)

A solution to a problem which involves a negotiation of mutually exchanged behaviors. A Compromise often takes the form of an "I'll do this if you do that" statement. Includes statements that are part of working towards a compromise.

Examples: a) "I'll agree to pay you your allowance on Friday if you promise to be home on school nights."
b) "I will stop yelling at you if you stop teasing me."
c) "We can move our chairs over so we can have more room."

Summarize/Paraphrase (SP)

Apparent when a speaker summarizes another's statement(s) or summarizes a discussion that the group has been having. Summarize/Paraphrase is also coded when the speaker clarifies his or her own statements or behaviors.

Examples: a) "So you think that if your Mom and I treated you better you would obey us more."
b) "We all agree that we will go to New York for vacation, right?"
c) "I was trying to let you know that I was worried about you."

Facilitative Problem Questions

A speaker asks a question that facilitates productive discussion of the problem. Includes questions that help the child understand the nature of the problem, questions that help the child think through what to do about the problem, and questions that check-in to gauge child's understanding of the problem. At times, may look like a framed question, but one that offers a helpful and nonrepetitive point.

Examples: a) "Do you know the reason why I asked you to stay inside?"
b) "Would it help if I reminded you to clean your room?"
c) "What do you think you could do that would help?"

Perspective Sharing

Parent shares their own opinions about the problem in a manner that contributes to mutual discussion or the child’s understanding of the problem. This is different from a One-sided Explanation that appears more like talking to the child (as opposed to talking with the child). Different from Excessive Explanation in that it is contributing new information to the child’s understanding (from the perspective of the coder).
Problem Identification

A productive statement or two from the parent that identifies the problem for the child (including the source, origin, nature of the problem). Parent does this in a way that engages the child and facilitates further discussion about the problem.

a) “The problem as I see it is that you aren’t getting up in the morning.”
b) “It seems like you have a hard time remembering to do your homework before you watch TV.”
c) “I had to ask you three times before you did what I asked.”

When a parent continues to give their perspective (e.g. makes more than two to three productive statements) this will change to an Excessive Explanation code. Begin coding as excessive explanation as soon as the parent loses connection with child yet continues to talk. Can code as excessive explanation from the beginning if parent talks “at” the child from the start and never engages the child.
Supportive Parent – Verbal
Includes parent behaviors and comments that indicate that they support the child, are responsive to the child's opinions/feelings, take responsibility for their own actions, and are actively listening to the child. Also includes behaviors that would be considered "warm" such as affectionately touching the child, agreeing with the child, smiling/laughing, maintaining a positive connection with the child.

Includes accepting responsibility, agreeing, assent/echo, approving, empathy, smile/laugh, affectionate physical behavior, feeling statements, feeling probes, validation, attentive listening, active engagement.

Accept Responsibility (AR)
Apparent when one admits to being part of the problem being discussed (i.e., that one’s actions helped create the problem).

Examples: a) “I broke our contract last week.”
           b) “Yeah, I guess I yell too much.”
           c) “I broke curfew.”
           d) “I guess I do that, don’t I?”

Agree/Assent
A statement that implies that the speaker agrees with a factual statement or opinion made by another. A verbal statement such as “uh—huh” or “yea,” or a non-verbal behavior such as nodding one’s head which is emitted while another is speaking or directly afterward. Assent is only to be scored as a response. Also, directly repeating what the previous speaker said as an acknowledgment of the speaker’s comment.

Examples: a) “Yes, he dropped out of school in November.”
           b) “Yea, I think you’re right about that.”
           c) “Uh—huh”
           d) “Right”
           e) Nodding of head in agreement or understanding.
           f) Echo of previous speaker’s statement as acknowledgment.
           g) “Nope” in response to a negatively phrased statement.

Approval/Acceptance (AA)
A statement that implies the speaker approves of or accepts another’s thoughts, feelings, or actions.

Examples: a) “I think you’re doing a good job.”
           b) “I like when you do your chores.”
Empathy/Validation (EM)

Apparent when a speaker makes a statement which implies knowledge of another’s thoughts or feelings, is stated with positive intent of feeling, and the listener agrees with the statement. A statement indicating that the speaker accepts and understands a previously stated feeling of the listener.

Example: “I can see how you would feel nervous about that”.

“You feel bad when we get into fights.”
“You like it when we all eat dinner together.”
“You seem uncomfortable when we yell at you.”

Emotion Talk (Includes feeling statements and feeling probes)

A statement that reports on a past, present, or future emotional reaction of the speaker which is directly related to the topic of the discussion. Statements that begin with “I feel ...” followed by a statement of an opinion rather than a report of an emotional reaction are considered problem talk. Sometimes the speaker fails to label the fleeing, but makes the statement along with nonverbal cues that clearly communicate feeling. This is particularly true for instances of nervousness, hurt, or worry. A request in which the speaker asks the listener to express a feeling related to topic discussion.

Example: “I got really sad when my friend forgot to come over.”
“It makes me nervous when you say stuff like that.”
“How does that make you feel when Sam ignores you?”
Supportive Parent - Nonverbal

Parent shows support and warmth to the child in a nonverbal way, such as touching the child’s arm affectionately, nodding and agreeing, actively listening to child’s talk.

Smile/Laugh (SL)
Apparent when people smile or laugh at appropriate jokes or true humorous events within the interaction. In addition, smiles of approval or appreciation.

Examples:
- a) The family laughing at an appropriate joke “Dad” makes to prove a point.
- b) “Mom” smiling when “Jr.” gives in and says, “Yea, I know I should do that” and the smile showing appreciation for “Jr.’s” acknowledging his error.

Affectionate Physical Behavior (AB)
Parent touches child in a warm and affectionate way. Consistent with parent trying to positively connect with child.

Examples: a) gently touches child’s arm
- b) rubs child on back

Attentive Listening (AL)
Parent demonstrates to child that they are actively listening by making eye-contact, nodding, non-verbally acknowledging that child is speaking. Parent appears actively and positively engaged in child’s comments.
**Aversive Parent – Verbal**

Parent behaviors which would be considered aversive in nature (those that make you feel chilly when you hear them). Includes comments that are said in a harsh/negative voice tone, in a critical/condescending manner, which seem to put the child down, or which blatantly deny their own role in the problem.

Includes attacking questions, negative commands, negative disagreeing, disapprove/criticize, mind reading, physical aggression, put-downs, sarcasm, teasing/taunting, threatening, denying responsibility, no response/ignoring, negative affect (negative facial expressions), aversive framed questions.

**Attack Question (AQ)**

A question which asked with a hostile tone of voice or is designed to frame the respondent into admitting his guilt or responsibility for a situation.

Examples: a) "Who left the door open all night and came in drunk?"
b) Any question stated in a hostile voice.
c) "You ate the pie that I baked for the school picnic, didn't you?"

**Negative Command (NC)**

Apparent when the speaker emits a specific directive to the listener to cease a specific behavior in an aversive tone of voice.

Examples: a) "Stop tapping your shoes!"
b) "Stop ditching class!"

**Negative Disagree (ND)**

A statement that implies that the speaker disagrees with a factual statement or opinion of another. Must be done in a manner that disrupts problem solving process (e.g. in harsh tone of voice, in manner that refuses to see another point of view).

Examples: a) "No, he got home at midnight, not eleven!"
b) "Your allowance is $5 a week, not $10"
c) "No" or "Nuh--uh" Following the factual statement of another.

**Disapprove/Criticize/Put-Down (DC)**

A statement that implies disapproval or lack of acceptance by the speaker of another's thoughts, feelings, or actions. A statement which criticizes specific areas of another's thoughts, feelings, or actions. Apparent when the speaker makes a global statement of complaint which attributes a negative personality characteristic of another. Assigning a negative trait to another.

a) "You are a slob."
b) "You always say stupid things."
c) "You're really lazy about everything you do."
d) "I don't believe you have the nerve to stay out until mid-night!"
e) "You hardly ever do your chores on time!"
f) "Your grade in math was lousy!"

Aversive Mind reading (M)
Is apparent when the speaker makes a statement that implies that the speaker is aware of the listener's thought or feelings without prior statements of these thoughts or feelings by the listener. Often, there is a negative connotation to the statement.

Examples: a) "You don't want me in school because you're jealous of me."
b) "I know you like it when Jr. gets away with breaking my rules!"

Sarcasm (S)
Apparent when a speaker makes a statement with a sarcastic tone of voice or makes a statement which appears to be the opposite of their position or intention within the communication.

Examples: a) "I think it's great you flunked math!"
b) "Of course you deserve an allowance!"
c) "Sure, you're old enough to take care of yourself."

Tease/Taunt (TT)
Apparent when someone taunts or teases another family member in a provoking or hostile manner.

Examples: a) "That will be on tape you know, ha, ha!"
b) "What's your girlfriend's name, Johnny?" being asked of Johnny when it is clear that he does not wish to discuss the subject.

Threat (TH)
Apparent when a speaker makes verbal or behavioral gestures which indicate he will elicit a behavior that will have negative consequences on the listener.

Examples: a) "If you keep picking on me I will run away forever."
b) "If you yell at me I'll break the windows."
c) A behavioral gesture which threatens violence, such as making a fist and shaking it at the listener.

Deny Responsibility (DR)
Apparent when the speaker makes a statement in an aversive manner (e.g. tone of voice, refusing to acknowledge their role in the problem) that implies an excuse for his or her behavior. Deny Responsibility is also coded when the speaker defends his or her actions and blames their behavior on someone else.
Different from Deny Responsibility under Unproductive Problem solving in manner in which it was said. If said in an aversive tone of voice, code Aversive. If said with a more neutral, positive, or silly tone, code under Unproductive Problem Solving.

Examples:  
- a) "I had nothing to do with it!"
- b) "My friends made me do it!"
- c) "Well if you would shut up, I would not have to yell."

No Response/Ignore (NR)
Apparent when the person spoken to does not respond or ignores the speaker. A period of at least five seconds must pass before a No Response/Ignore (31) is coded.

Examples:  
- a) Not answering a question
- b) Looking away from the speaker after he/she is done speaking.

Aversive Framed Questions (AFQ)
Questions that assume the child's guilt, or elicit a certain type of response from the child. Said in an aversive manner (i.e. critical, harsh voice tone).

Examples:  
- a) "You need to start getting up earlier, right?!"
- b) "What is it you're supposed to do first when you get home?!"
**Aversive Parent - Nonverbal**

**Negative Affect (NA)**
Demonstrates negative affect through voice tone or facial expression.

**Examples:**
- a) frown
- b) an angry sigh
- c) negative harsh tone of voice while speaking

Differential coding rule: If parent is also engaging in a verbal aversive behavior, code for that behavior. If parent’s behavior is purely nonverbal, or if it is their negative affect that leads their verbal behavior to be aversive, code Negative Affect.
Unproductive Problem Talk Parent

These codes incorporate parental discussion which would be considered generally neutral in affect and voice tone, but are disconnected from child or are not contributing to the child's learning experience about problem solving. This discussion typically does not reflect a mutual discussion or a productive resolution to the problem.

Interactions characterized by aversive behaviors and negative/critical affect and behavior should be coded Aversive, not Unproductive.

Includes solution listing, one-sided commands, excessive explanation, framed questions, giving in, and bickering.

Solution Listing (SL)

Parent lists multiple solutions in a manner that is disconnected from child and is not contributing to reaching a mutual discussion/discussion.

Examples: a) "You just need to start cleaning up your room, doing your homework, going to bed earlier..." (said in neutral or even positive tone of voice)

One-sided commands (OC)

Parent tells child in a neutral manner what they think they should do. It is in a manner that is one-sided, disconnected from child, and most importantly does not contribute to the child's mutual learning experience. It tends to stop the flow of the conversation with the child instead of contributing to it.

Examples: (dependant on parent's tone of voice)

a) "You should just start coming in on time, right?"

b) "You shouldn't leave the yard."

Is different from Negative Command (Aversive code) in that is not in an aversive tone of voice/manner. Different from a Plan Suggestion (Problem Solving Code) in that a Plan Suggestion is said in a helpful way meant to contribute to a mutually successful solution to the problem. This code represents a discussion that feels one-sided.

Excessive Explanation (EE)

Parent excessively describes their point of view/the problem in a manner that loses connection with child. They repeat the same information to the child. Either you know or you can see that they kid knows that this if information that they have already heard (and probably was said in the same type of manner). If parent begins with perspective sharing, it becomes excessive explanation when the parent either a) loses the child’s interest but keeps talking, b) begins to repeat things he/she has already said, c) says more than 3 or 4 sentences about their perspective.
**Framed Questions (FQ)**
Questions that assume the child's guilt, or elicit a certain type of response from the child. Said in a nonaversive manner.

**Examples:**
- a) "You need to start getting up earlier, right?"
- b) "You're not getting your homework done because you don't pay attention, right?"

**Giving In (GI)**
Parent states that the child can have whatever they want, that the problem is not worth having a discussion about.

**Example:** a) "Fine, do it however you want to. I don't want to talk about it anymore."

**Bickering (B)**
Parent and child have a back and forth dialogue about the problem. Takes the form of "Yes I am," / "No you're not" or "Yes it happened," / "No it didn't."

If said in an aversive tone of voice, code as Disagreeing (Aversive code). Different from coding Disagree in that the back and forth dialogue for Bickering is neutral or even playful.

**Neutral Mind Reading**
Is apparent when the speaker makes a statement that implies that the speaker is aware of the listener's thought or feelings without prior statements of these thoughts or feelings by the listener. If said in an aversive manner, code Aversive Mind Reading. If said in a neutral tone, code Unproductive Mind Reading.

**Examples:**
- a) "You don't want me in school because you're jealous of me."
- b) "I know you like it when Jr. gets away with breaking my rules."
II. CHILD CODES

**Problem Solving Child**
Behaviors and comments which reflect that the child is engaging in a problem solving process. These behaviors will be more basic than those demonstrated by the parents. Includes comments about their role in the problem, questions/comments that show that they are thinking about the cause or consequence of the problem, or how to solve it.

Includes acknowledging cause/role, clarification requests, opinion probes, plan suggestions, solution/compromise, summary/paraphrase, facilitative problem questions

**Acknowledging Cause/Role (AR)**
Child acknowledges either the cause of the problem or their role in the problem.

Example: a) "Yeah, I guess I didn't pay attention when you were talking."
b) "I guess I do argue more when I'm tired."

Only counts as acknowledging cause if they speak to their own role. If just an agreement to a parent’s question, code as Cooperative.

**Clarification Request (CR)**
Apparent when a speaker asks a previous speaker to repeat or to further explain what they just said. This may be either because they want clarification, did not understand, or simply did not hear what was said.

Examples: a) “What did you say?”
b) Asking a specific question about what the speaker just said.
c) “Huh?” or “Hmm?” when stated in the context of wanting the speaker to repeat or to clarify what they just said.

**Opinion Probe (OP)**
Apparent when the speaker asks a question that is intended to elicit communication about the listeners' thoughts in a genuine attempt to understand the listener. An Opinion Probe should give the listener the opportunity to respond openly about their own thoughts.

Examples: a) "What do you think about changing your curfew hour?"
c) "Where would you like to go for a family vacation?"
d) "What is on your mind?"
e) “What do you think we should do about…?”
Plan Suggestion/Solution (PS)
Apparent when a speaker makes a unilateral suggestion (i.e. a suggestion that does not involve the speaker) about how a problem might be solved or what the listener might do. It should be a sincere suggestion made by the speaker that is meant to help others in alleviating the problem.

Examples: a) "Why don't you take a vacation to Bogotá. It might help you to relax."
b) "Try getting up ten minutes earlier so you do not have to rush."
c) "Why don't the two of you take turns riding the bicycle. That way you both will get a chance to ride."

Compromise (CO)
A solution to a problem which involves a negotiation of mutually exchanged behaviors. A Compromise often takes the form of an "I'll do this if you do that" statement. Includes statements that are part of working towards a compromise.

Examples: a) "I'll agree to pay you your allowance on Friday if you promise to be home on school nights."
b) "I will stop yelling at you if you stop teasing me."
c) "We can move our chairs over so we can have more room."

Summarize/Paraphrase (SP)
Apparent when a speaker summarizes another’s statement(s) or summarizes a discussion that the group has been having. Summarize/Paraphrase is also coded when the speaker clarifies his or her own statements or behaviors.

Examples: a) “So you think that if your Mom and I treated you better you would obey us more.”
b) “We all agree that we will go to New York for vacation, right?”
c) “I was trying to let you know that I was worried about you.”

Facilitative Problem Questions (FQ)
Child asks a question that facilitates productive discussion, resolution, or their understanding of the problem.

Examples: a) “Will you remind me when I forget to clean my room?”
b) “Does Billy not like it when I go in his room?”

Problem Identification
Child identifies the problem.

Examples: a) “When I come home sometimes I don’t do my homework.”
b) “I like stay outside but you want me to come inside.”
**Cooperative Child - Verbal**

Behaviors or comments that demonstrate that the child is cooperating with the parent. This includes agreeing, accepting responsibility, complying, positive affect, and listening attentively.

**Includes accepting responsibility, agreeing/assent, compliance, feeling statements, smile/laugh in a connected way, attentive listening.**

**Accept Responsibility (AR)**

Apparent when one admits to being part of the problem being discussed (i.e., that one's actions helped create the problem).

**Examples:**

a) "I broke our contract last week."
b) "Yeah, I guess I yell too much."
c) "I broke curfew."
d) "I guess I do that, don't I?"

**Agree/Assent (AA)**

A statement that implies that the speaker agrees with a factual statement or opinion made by another. A verbal statement such as "uh--huh" or "yaayea," or a non-verbal behavior such as nodding one's head which is emitted while another is speaking or directly afterward. Agree/Assent is only to be scored as a response.

**Examples:**

a) "Yes, he dropped out of school in November."
b) "Yea, I think you're right about that."
c) "Uh--huh" 
d) "Right"

e) Nodding of head in agreement or understanding.
f) Echo of previous speaker's statement as acknowledgment.
g) "Nope" in response to a negatively phrased statement.

**Emotion Talk**

A statement or question that reflects a past, present, or future emotional reaction of the speaker or listener. It is directly related to the topic of the discussion. Statements that begin with "I feel ..." followed by a statement of an opinion rather than a report of an emotional reaction are considered problem talk. Sometimes the speaker fails to label the feeling, but makes the statement along with nonverbal cues that clearly communicate feeling. This is particularly true for instances of nervousness, hurt, or worry.

**Example**

a) "I got really sad when my friend forgot to come over."
b) "It makes me nervous when you say stuff like that."
c) “Do you feel mad when I don’t do my chores?”
Cooperative Child - Nonverbal

Compliance (C)
Apparent when a child emits or stops emitting the specific behavior which is asked for by the speaker. Compliance is generally coded following a Direct Command, a Negative Command, or a Request for Attention given by the parent.

Examples: a) "Jr." ties his shoes after a Direct Command from "Mom."
       b) "Jr." stops tapping his foot after a Command Negative (81) from "Mom."
       c) "Mom" orients/attenuates to "Jr." after he elicits a Request for Attention

Smile/Laugh (SL)
Apparent when people smile or laugh at *appropriate jokes or true humorous events* within the interaction. In addition, smiles of approval or appreciation.

Examples: a) The family laughing at an appropriate joke "Dad" makes to prove a point.
          b) "Mom" smiling when "Jr." gives in and says, "yea, I know I should do that" and the smile showing appreciation for "Jr.'s" acknowledging his error.

Smiling and Laughing could also be reflective of Withdrawal, if done to disconnect from what the parent is saying. Could also be reflective of disruptive behavior if it is interfering with problem solving process and effective communication.

Attentive Listening (AL)
Child demonstrates to parent that they are actively listening by making eye-contact, nodding, non-verbally acknowledging that parent is speaking. Child appears actively and engaged in parent’s comments.

Affectionate Physical Behavior (AB)
Child touches parent in a warm and affectionate way. Consistent with child trying to positively connect with parent.

Examples: a) gently touches parent’s arm
          b) hugs parent
**Aversive/Oppositional Child - Verbal**

Behavior which would be considered disruptive, annoying, or oppositional. Includes any behavior that challenges the authority of the parent (e.g. noncompliance, threat, criticizing), is characterized by aversive negative affect (yelling, laughing inappropriately), is blatantly disrespectful, or that disrupts effective discussion of the problem.

Includes cry/whine, negative disagree, disruptive, noncompliant, physical aggression, put-downs, sarcasm, testing/challenging, denying responsibility, threatening, criticism.

**Negative Disagree (ND)**

A statement that implies that the speaker disagrees with a factual statement or opinion of another.

*Examples:*  
- "No, he got home at midnight, not eleven!"
- "Your allowance is $5 a week, not $10"
- "No" or "Nuh'uh" in a disruptive/oppositional manner.

Is not considered Negative Disagree if child expresses a true disagreeing perspective to parent in an appropriate manner.

**Disruptive Statement (D)**

Apparent when a third party breaks into the conversation of the first and second party with a statement which is non-relevant to the discussion at hand. Any other statement which is disruptive to the conversation.

*Examples:*  
- "Mom" and ADad" are discussing AJr.'s" behavior and AJr." interjects, "Mom, what's for dinner tonight?"

**Put-down/Criticize (PD)**

Apparent when the speaker makes a global statement of complaint which attributes a negative personality characteristic of another. Assigning a negative trait to another. A statement which criticizes specific areas of another's thoughts, feelings, appearance, or actions.

*Examples:*  
- "You're ugly."
- "That's stupid!"
- "I hate that shirt."
- "You are a slob."
- "You always say stupid things."

**Sarcasm (S)**

Apparent when a speaker makes a statement with a sarcastic tone of voice or makes a statement which appears to be the opposite of their position or intention within the
communication.

Examples:  a) "I think it's great you flunked math!"
            b) "Of course you deserve an allowance!"
            c) "Sure, you're old enough to take care of yourself."

Testing/Challenging (TC)

Apparent when the speaker makes a statement or question that implies a testing of limits or a challenge to prescribed rules or authority. Also any behavior which tests limits or challenges authority.

Examples:  a) "Why can't I stay out until 11:00!"
            b) "Does it matter if I take out the garbage five minutes after you tell me?"
            c) A deliberate "partial compliance" to a command that was given by the parent to see what can be gotten away with.
            d) A child refuses to do something in either the present or future which has been directed of him by a parent.

Deny Responsibility (DR)

Apparent when the speaker makes a statement in an aversive manner (e.g. tone of voice, refusing to acknowledge their role in the problem) that implies an excuse for his or her behavior. Deny Responsibility is also coded when the speaker defends his or her actions and blames their behavior on someone else.

Examples:  a) "I had nothing to do with it!"
            b) "My friends made me do it!"
            c) "Well if you would shut up, I would not have to yell."

Threat (TH)

Apparent when a speaker makes verbal or behavioral gestures which indicate he will elicit a behavior that will have negative consequences on the listener.

Examples:  a) "If you keep picking on me I will run away forever."
            b) "If you yell at me I'll break the windows."
            c) A behavioral gesture which threatens violence, such as making a fist and shaking it at the listener.
**Aversive/Oppositional Child - Nonverbal**

Behavior which would be considered disruptive, annoying, or oppositional. Includes any behavior that challenges the authority of the parent (e.g. noncompliance, threat, criticizing), is characterized by aversive negative affect (yelling, laughing inappropriately), is blatantly disrespectful, or that disrupts effective discussion of the problem.

Includes cry/whine, negative disagree, disruptive, noncompliant, physical aggression, put-downs, sarcasm, testing/challenging, denying responsibility, threatening, criticism.

**Cry/Whine (CW)**

Apparent when a person is actively crying or whining

*Examples:*
- a) "You (sob) never (sob, sob) listen to me."
- b) "But Mommmm, I don't wanna go to school!"
- c) "If (sob) you don't (sob, sob) leave me alone I'm leaving (sob) home!"

**Disruptive Behavior (D)**

Apparent when a third party breaks into the conversation of the first and second party with a statement or behavior which is non-relevant to the discussion at hand. Any other statement or behavior which is disruptive to the conversation.

*Examples:*
- a) "Mom" and "Dad" are discussing an issue and "Jr." starts grimacing and holding his stomach.
- b) "Jr." laughs inappropriately during a family discussion.

**Noncompliance (N)**

Apparent when one does not follow any command (e.g. Direct Command, Command Negative, or Request for Attention) which was previously stated. A Noncompliance is scored if they have not complied with the given command within 5 seconds following the command.

*Examples:*
- a) Not emitting or ceasing behaviors which have been directed.
- b) Ignoring a Command.

**Physical Aggression (PA)**

Apparent whenever someone strikes someone else, throws something in anger, etc.

*Examples:*
- a) A child hits his brother.
- b) A parent spanks a child.
- c) A child throws something at a parent.
**Withdrawal (WC)**

**NOTE:** For these behaviors to be coded, the child must be using the behavior as a *means of withdrawing* from the parent. If the child is engaging in one of these behavior and it does not appear to serve the function of withdrawing, do not code it as such.

Behaviors and comments which show that the child is in some way attempting to disconnect from the parent or the discussion. Might be characterized as dissociation from what is occurring.

Includes the child not responding, turning/looking away, self-stimulating (e.g. playing with ears, rocking back and forth, humming), talking about things that are unrelated as an attempt to disconnect from conversation.

**Includes no response/ignore, self-stimulation, turn off (a “don’t bother me” attitude), negativism, looking away, and unrelated talk.**

**No Response/Ignore (NR)**

Apparent when the person spoken to does not respond or ignores the speaker. If child is not responding/ignoring and is also consistently looking away, code as Turn Off/Look Away.

**Examples:**

a) Not answering a question
b) Looking away from the speaker after he/she is done speaking.

**Self-Stimulation (SS)**

Apparent when the listener exhibits behaviors which are repetitive and which appear to be done to withdraw the listener from the conversation. Also, autistic-like behavior on the part of a child (e.g. repetitive motor movements not designed as a specific communication).

**Examples:**

a) Humming to oneself.
b) Repetitive checking of one's pockets.
c) Playing with hands, tapping fingers, rocking back and forth or head banging.

Does not count as self-stimulation if child is playing with hands, tapping fingers etc. while they are actively listening to parent in an attentive way.

**Turn Off/Looking Away (TN)**

Apparent when the speaker makes a statement or demonstrates a behavior which “turns-off” the conversation or conveys a “do not bother me” attitude. Child consistently looks away from parent while parent is talking. Code if child is trying to distract from parent or is unengaged with parent. Is not considered looking away if just a normal break in eye-contact or distraction by something that occurs in environment.

**Examples:**

a) "Do not ask me, ask her!"
b) "I do not know!"
c) Shrugging shoulders and looking away from the speaker.

**Unrelated Talk (UT)**

Child begins talking about a completely separate or unrelated topic. Appears to be done in a manner which withdraws them or helps them disconnect/dissociate from the conversation. Sometimes child's talk is difficult to understand.

**Examples:**

a) Mom: "You just need to stay in the yard like I told you to."
   Child: (playing with ears) "I want to play with Melissa."

b) Mom: "You just need to stop watching so much TV."
   Child: "You're going to drive me to school?"

Do not count as Withdrawal if child is making a natural comment about something else that occurs in the room or triggers that train of thought (i.e. if you see why they brought it up).