

INTERPERSONAL PROBLEM-SOLVING ABILITIES
OF PHYSICALLY ABUSIVE MOTHERS

By

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CHAPTER I
INTRODUCTION

As public and professional attention has been directed toward child abuse, the literature on this problem has increased. Researchers and clinicians have attempted to understand the etiology of child abuse. Today a sizeable theoretical and descriptive literature exists regarding identification, causation, treatment, and prevention (Burgess, 1979; Enfer & Schneewind, 1982; Freidrich & Einbender, 1983; Freidrich & Wheeler, 1982; Kelly, 1983; Lorber, Felton, & Reid, 1984; Reid, Taplin, & Lorber, 1982; Spinetta & Riegler, 1972). Despite the intensive interest and effort focused upon abusive parents and their families, we know little about the antecedents of child abuse. Although numerous etiologies have been proposed, critical evaluation of these formulations reveals that they rely heavily on professional opinion and that little empirical data exist to document current conceptions (Cicchetti, Taraldson, & Egeland, 1978; Parke & Collmer, 1975; Spinetta & Riegler, 1972). Kelly summarized the state of the literature as follows:

Child abuse is . . . not well conceptualized, and a great deal of clinical and research 'searching' for causes and treatments occurs. Of the hundreds of studies conducted, the vast majority appear primarily to describe some aspect of abusive behavior . . . Numerous reports have attempted to identify parent personality characteristics related to abusive behaviors, to describe child characteristics that related to increased susceptibility for abuse, and to assist in diagnosing cases, and to delineate the frequency of abuse. Much more rare in the literature are efforts to integrate this descriptive knowledge base into conceptual models that carry direct, practical implications for the assessment and treatment of child-abusive families (Kelly, 1983, p. vi).

One reason for the lack of systematic progress in the field may be that researchers, in attempts to understand the phenomena, have not drawn from existing literature in areas other than child abuse. For example, child abuse is clearly an act of intra-species aggression yet few authors have drawn from the wealth of psychological research on aggression in developing their formulations. Similarly, theories of abuse often hypothesize poor parenting skills and difficulty in dealing with conflict. However, no formulations have drawn from the literature on interpersonal problem-solving. The

present study applies existing paradigms in the psychological literature on aggression and interpersonal problem solving to the study of maternal discipline in physically abusive families.

Another reason for the lack of systematic progress is that the data upon which current theories have been based have come almost exclusively from field studies. Poor control of relevant variables and post hoc correlational data have prohibited specification of relationships. Some studies do not separate type of abuse nor carefully define the abusive population. The studies cited in this review vary greatly in experimental rigor. They range from case reports to single subject designs to group data with adequate control groups and valid assessment measures. The latter are rarer.

The current study will focus on physically abusive systems and will not include sexual abuse nor neglect as different factors and characteristics are likely involved in the different types of abuse. Using a social learning perspective and incorporating relevant theories from the aggression and anger literature as well as the interpersonal problem solving literature, the present study will assess parental interpersonal problem solving abilities of physically child abusive mothers. The present study will attempt to control for or to utilize covariance analyses for the socioeconomic status (SES) level of the family, the age of child abused, and the cognitive level of the parent. Only physically abusive mothers will be used. The abusive

experience will have occurred within the last year and no other form of child abuse will have been reported. The assumption is that the physically abusive parent is not an effective parent in coping with parent-child problems and that if interventions are aimed at this pivotal point in the antecedent process, that child abuse is less likely to occur. The model postulates the following scenario: (a) familial and individual characteristics are of a certain nature (to be detailed later) which result in deficits in parenting; (b) a problem arises in the parent-child interaction that must be solved, but there are limited solutions known to the person(s) and limited ability to utilize them in vivo; then (c) the parent uses overlearned coercive methods with the consequences for the child being physical punitiveness. Somehow the punitive solution is reinforced, thereby increasing the probability of further abuse.

CHAPTER II

LITERATURE REVIEW

Critical Factors in Child Abuse

Two recently published articles identified possible critical factors antecedent to child abuse. In a review article, Friedman, Sandler, Hernandez, and Wolfe (1981) indicated the most frequently reported antecedents were child aversive behavior and marital conflict. Individual parent characteristics, including the parent's capabilities for meeting the demands of a problem situation, were also important antecedents of aggression directed toward the child. These authors stated that the consequences of the aggressive response were probably short term reinforcement via termination of the aversive stimuli and tension reduction. They suggested that long term contingencies were probably child habituation and the development of coercive cycles of interaction as the termination of the child's behavior reinforces the parents' sense of control. Enfer and Schneewind (1982), with a sample of 570 physically abusive families, used multivariate data analysis to identify significant contributing factors to harsh punishment. These were variables which describe aspects of the parent-child relationship, modes of handling intrafamily conflicts, and

the way in which mothers perceive their child. Of the variables they assessed, parent's perception of the child as a problem child, maternal anger-proneness, rigid power assertion, and family conflicts were found to be the most significant predictors of harsh punishment.

In order to delineate antecedent variables which decrease the likelihood of effective parent-child problem solving, it is important to first gain an understanding of the following areas: (a) social and environmental stressors, (b) characteristics of children who are physically abused, (c) characteristics of abusive parents, and (d) characteristics of the interactions in physically abusive families.

Social and Environmental Factors

One very important societal variable is acceptance of physical punishment as a means to deal with child misbehavior. The stereotypes of family violence are continually reaffirmed for adults and children through ordinary social interactions and in the mass media (Bandura, 1972). The concept that physical punishment tactics (and thus, child abusive behavior) are learned and are cyclical across generations is prevalent in the literature (Bandura, 1973; Evans, 1981; Herbruck, 1980; Kelly, 1983; Silver, Dublin, & Louri, 1969; Spinetta & Riegler, 1972; Steele, 1970; Steele & Pollock, 1968). Parental use of physical punishment provides an especially powerful role model for demonstrating solutions to parent child conflicts. It

demonstrates that force can and should be used between intimates and that physical force is highly effective in controlling the behavior of others (Goode, 1971).

Sociocultural models give environmental stress a central role in the etiology of abuse (Gil, 1970). According to this view, child abuse is the product of frustration and impotence caused by inadequate social and economic resources. Factors in this category that have been linked to an increased incidence of child abuse are: (a) overwhelming child care responsibilities, (b) social isolation of the parent, (c) socioeconomic stress including joblessness, (d) marital discord and family problems (Kelly, 1983), and (e) neighborhoods that are lacking in friendship and support (Garbarino, 1981). Kelly (1983) hypothesized that these external stresses serve to increase the general frustration level of parents and lead them to feel overwhelmed and isolated from sources of positive reinforcement.

In a study of abusing and non-abusing mothers, Egeland, Brietenbucher, and Rosenberg (1980) reported that the manner in which life events were experienced and interpreted was more important than total life events stress. Compared to that for nonabusive mothers, the disruptiveness created by stressful events and the level of confusion experienced by the abusive mothers was considerably greater. These authors suggested that highly stressed abusive mothers were less able to exert the control needed to solve the problems of environmental stress. It is assumed that parents who

perceive themselves as buffeted by stress are therefore less effective in dealing with interpersonal conflict, including parent-child conflict. Such a situation may increase the risk for parental physically abusive behavior toward a child.

A child abuse analog study by Doran (1981) is in conflict with such assumptions. Doran found that high levels of environmental stress, both controllable and uncontrollable by the parent, did not result in significant increases in physical punishment and aggression in disciplinary situations. Her data suggested that the powerful determinant was previous experience with physical punishment.

Other analog studies (Donnerstein & Wilson, 1976; Geen, 1978) suggest that highly stressed subjects who could not control the stressor were more aggressive only when they had been previously angered. Thus, anger is possibly a necessary precipitant of aggressive discipline under stressful conditions, and abusive parents have been shown to be anger prone and overaroused to child behaviors.

Abused Child Factors

There are suggestions in the literature that the child who is more likely to be abused is one who presents the parent with greater child rearing problems, e.g., developmental delays, poorer intellectual functioning, and emotional and behavioral problems. Yet in their review, Freidrich and Einbender (1983) summarize studies that suggest abused children manifest serious problems in emotional

development which appear to be a function of the abuse. The question of whether the child presents greater parenting demands which increase the probability of abuse or whether the aversive parenting results in greater frequency of child problems is impossible to answer at this time. However, what is clear is that no one unique behavioral style is characteristic of the abused child and that a high incidence of emotional problems and interpersonal problems with peers and adults (Jacobson & Straker, 1982; Kent, 1976) is consistently documented. Abused children exhibit aggressive interactions (George & Main, 1979; Hoffmann-Plotkin & Twentyman, 1974; Howes & Eldredge, 1985; Kent, 1976; Kinard, 1980, 1982), and more disruptive behaviors and aversive behaviors (Bousha & Twentyman, 1984; Lahey, Conger, Atkeson, & Treiber, 1984; Lorber, Felton, & Reid, 1984; Reid, Taplin, & Lorber, 1981; Wolfe & Mask, 1983). In contrast, no observed differences in rates of negative behaviors by abused children were reported by Burgess and Conger (1978) nor by Mash, Johnston, and Kovitz (1983). Mash et al. (1983) suggest that parental perceptions of parent-child difficulties and/or a problem child are more important in parent abuse than the actual interactions. The child who is viewed by the parent as a "problem" that the parent feels ineffective in handling (and may be ineffective in handling) is at greater risk for abuse.

Thus, the abused child is seen as a child who often has emotional problems and who is more likely to be poorly

socialized and to engage in aversive and/or aggressive behavior. This child presents (realistically or via parental perceptions) more child management demands and, thus, a coercive cycle of interactions results that is more likely to lead to child abuse.

Abusive Parent Factors

No definitive studies exist that show distinctive psychopathological characteristics of abusive parents. In a review article, Wolfe (1985) states that no significant differences have been found between abusers and nonabusers on traditional psychological dimensions. Yet, single studies conclude that personality characteristics are associated with physically abusing parents. These include low self-esteem (Freidrich & Wheeler, 1982; Melnick & Hurley, 1969; O'Hearn, 1975; Rosen, 1979), impulsivity (Hyman, 1977; Paulson, Schwener, & Bendel, 1976; Spinetta & Riegler, 1972), loneliness/isolation (Spinetta, 1978; Watkins & Bradbard, 1982), hostility and aggression (Evans, 1981; Smith & Hansen, 1975), issues with nurturance needs (Evans, 1981), less empathy (Stultz, 1976), and general psychopathology (Evans, 1981; Paulson, Schwener, & Bendel, 1976; Smith & Hanson, 1975). Again, it is difficult to know whether the emotional issues were pre-existing, exacerbated or lead to the physical abusive style. Results from meta analyses procedures suggest that possible beta errors are more difficult to correct for in single subject designs (Hunter, 1990).

Several theorists have attempted to develop a typology of personality characteristics for physically abusing parents. Merrill (1962) suggested groupings based on factors of: (a) hostility and aggression, (b) rigidity and deficient empathy with child rejecting attitudes, and (c) passivity and dependency. Basing their speculations on notes from group psychotherapy sessions, Paulson, Strouse, and Chaleff (1980) suggested that physically abusive parents exhibited a sense of inadequacy with feelings of gross incompetence and a need for nurturance and affection. Severe treatment of the child to affirm parental control was seen as a tactic to mask their own inadequacies. Thus, abuse served both to purge negative emotional states and to reestablish a power role. In a more carefully controlled experimental design, Robertson (1984) used the Child Abuse Potential Inventory to show the factors of distress, loneliness, unhappiness, negative concept of child and self, problems with family and others, and rigidity in interactions with others to distinguish physical child abusers from other family systems abusers. In his empirical review, Wolfe (1985) reported abusive parents are distinguished by descriptions of displeasure in the parenting role and by stress-related complaints. According to an empirical review by Kelly (1983), individual characteristics such as low tolerance for stress, inappropriate and inadequate models and learning opportunities resulting in a poor repertoire of life skills, may be precursors to these stressful life events.

Most studies dealing with abusive parents focus on characteristics of mothers or of both parents. Few studies assess differences between paternal and maternal characteristics. O'Hearn (1975) found that fathers exhibited low self-esteem. Merrill (1962) included a typology of abusive fathers which suggested that in abuse the father displaced aggression stemming from unemployment; this factor was supported by Gil's (1970) survey. Interaction studies (Bousha & Twentyman, 1984; Burgess & Conger, 1977), which included the fathers' interactions, suggested that there are different antecedents for fathers. These data suggest that fathers are more likely to engage in coercive interactions with their wife than with their children. Therefore, it is difficult to state whether abusive fathers are different from abusive mothers and, if so, in what way. Also, it is unclear whether etiology is different for mothers and fathers who are abusive of children.

Studies do provide specific information on mothers. These studies suggest characteristics similar to those reported for abusive parents generally. Such mothers are described as less affectionate, more conflicted, more non-supportive, less trustful, and more resentful, and as exhibiting low self-esteem, more apathy, more depression, and more hostility (Evans, 1983). Abusive mothers are also described as having severely frustrated dependency needs, and as exhibiting an inability to empathize with their children

(Melnick & Hurley, 1969). Mash, Johnston, and Kovitz (1983) found that physically abusive mothers with preschool aged children view themselves as less competent in handling parent-child conflict. Azar, Robinson, Hekimian, and Twentyman (1984) found that abusive mothers display two forms of cognitive deficits: unrealistic expectations and poor problem-solving ability in child rearing situations with an infant or early toddler. No studies exist which look at maternal problem-solving ability in interactions with older children.

In summary, no specific personality characteristics of abusive parents have been found. The picture of the abusive parent presented is one who is easily frustrated by stressful demands, and who views parenting as maintaining control in situations they perceive as stressful and anger provoking. To maintain control, they utilize aggressive strategies which have been overlearned, and they are likely deficit in other problem-solving strategies.

Family Interaction Factors

In addition to characteristics of the parent and the child, there are factors underlying parent-child interactions and family interactions that are possible antecedents to child abuse. These include: (a) parental knowledge of child development, (b) parenting skills, and (c) parental responses to child and family interaction patterns.

First, consider the parental knowledge of child development. Child behaviors which elicit abusive parental responses are often actions which are considered developmentally normal for children (Friedman et al., 1981; Scott, 1973; Weston, 1968). Investigators report that child-abusive parents have little practical knowledge of the developmental behavioral competencies of children (Elmer, 1977; Smith & Hanson, 1975; Spinetta & Riegler, 1972; Twentyman & Plotkin, 1982).

Related to this relative lack of knowledge regarding child development, abusive parents have high demands or distorted perceptions of their child's behavior. Several studies have found no differences on attitudinal or perceptual dimensions (Gaines, Sandrond, Green, & Power, 1978; Spinetta, 1978; Milner & Wimberely, 1980; Starr, 1982). Yet, several studies have reported differences, such as greater annoyance and lack of sympathy to a crying infant (Frodi & Lamb, 1980). Larrance and Twentyman (1983) reported that abusive parents were more likely to expect negative behavior from their children across time and in different situations and to maximize the child's responsibility for a problem situation. Bauer and Twentyman (1985) found that, compared to nonabusive mothers, abusive mothers consistently ascribed via self-report more malevolent intentionality to their child's behavior.

Second, consider evidence to support child-management skills deficits. Such evidence can be found in a number of case study analyses, single subject designs, and group comparisons of observational data (Bousha & Twentyman, 1984; Burgess, 1979; Burgess & Conger, 1977, 1978; Crimmins, Bradley, St. Lawrence, & Kelly, 1982; Crozier & Katz, 1979; Denicola & Sandler, 1980; Sandler, Van Dercar, & Milhoan, 1978; Scott, Baer, Christoff, & Kelly, 1982; Wolfe, Sandler, & Kaufman, 1981; Wolfe, St. Lawrence, Graves, Brehony, Bradlyn, & Kelly, 1982). These studies documented that abusive parents exhibited low rates of positive (affection, supportive comments) and appropriate behavior and often display high rates of negative (complaints, threats) and ineffective behavior when interacting with their children.

Many abusive individuals appear to lack appropriate management skills needed to control their children's misbehavior without violence (Justice, Calvert, & Justice, 1985; Mastria, Mastria, & Harkins, 1979; Parke & Deur, 1972; Reid, Tapin, & Lorber, 1981; Wolfe & Sandler, 1981). Many abusive individuals use anxiety and guilt-inducing methods in conjunction with harsh authoritarian procedures (Susman, Trickett, Iannotti, Hollenbeck, & Zahn-Waxler, 1985). Mash, Johnston, & Kovitz (1983) found that, compared to nonabusive mothers, physically abusive mothers had less understanding of the skills necessary for good parenting, placed less value on the parenting role, and provided less comfort. Trickett and

Susman (1988) broadly assessed parental child-rearing practices and beliefs. They found that, compared to nonabusive parents, physically abusive parents were less satisfied with their children, perceived child rearing as more difficult and less enjoyable, relied on different disciplinary strategies (more verbal and physical punishment), promoted an isolated life style for the family, and reported more anger and conflict in the family.

Research by Estes (1944) is worth mentioning here. He postulated that punishment works primarily because of the increased arousal generated; he found that once the emotional state wears off (usually labeled as anxiety or fear), the previously punished response tendency is as strong as ever. Thus, in terms of long term control of child behavior, the abusive parent is indeed limited in effective parenting strategies.

Lastly, consider evidence of problems in interaction patterns. The aforementioned patterns of low positive and high negative interactions are reflective of different interaction patterns in physically abusive families compared to nonabusive families, sexually abusive families, and/or neglectful families. Parent-child conflict has been found to distinguish physically abusive families from neglectful and/or sexually abusive families (Martin & Walters, 1982) and from nonabusive families (Perry, Wells, & Doran, 1983). Patterson (1976, 1977) found that aggressive and coercive

cycles occurred in bursts with parental punishment tending to accelerate ongoing coercive cycles on the part of the child. According to Patterson's theory, child maltreatment may be the eventual consequence of an escalating cycle of parent-child conflict and aggression. Once a physically abusive event has occurred and been reinforced via both long term and short term reinforcement, the probability of reoccurrence of physical abuse is greater.

Lorber et al. (1984) found that abusive parents often responded negatively to prosocial child behavior as well as to aversive behavior. They stated that the interactions of abusive families can be characterized by the reciprocal manner by which they emit negative or aversive behavior, the manner in which aversive behavior is negatively reinforced, and the relatively infrequent use of positive statements. Reid et al. (1981) found that abusers were more likely to engage in aversive as opposed to prosocial behaviors when they chose to interact. These authors suggested that the reliance upon aversive control may result in an escalation of negative interactions.

According to Lorber et al. (1984), the abusive mother also has an inability to accurately monitor child behavior that requires an extended disciplinary interaction. Thus, once any aversive interaction begins, the abusive mother is unable to quickly terminate the coercive sequence (which then escalates and may lead to physically abusive behavior).

Mash et al. (1983) observed abusive mothers to be more controlling only for more stressful task situations with increased demands for performance. Abusive mothers reported more stress; this self-report was correlated with their behavior during both play and task situations. To lead to aggressive responses, it appears necessary that this high stress be accompanied by anger (Silber, 1986). Parent-child aversive interactions have greater potential for injury as the parent loses control and accelerated from low to high intensity behavior (Vasta, 1982).

To summarize the information on family interactions and parental perceptions, child abusive parents: (a) are both less knowledgeable regarding developmental competencies of the child and hold to unrealistic expectations of the child, (b) lack appropriate child management skills, report feelings of less competency in child management, emphasize aversive interactions, and tend to utilize aversive controls, (c) engage in reciprocal coercive cycles, have greater difficulty distinguishing child behaviors that warrant extended disciplinary measures, are less responsive to child cues, and (d) are more controlling with the child especially under high situational demands. These data are generally reported for abusive parents with some studies focusing solely on the mother. In the few studies which reported data for the fathers separately, a less clear picture is presented.

There is an additional characteristic of abusive parents of hypervigilance: they are overaroused and hyperresponsive to not only aversive child behaviors but to other child behaviors as well. This coupled with an inclination toward aggression is a very important element, worthy of further comment here.

Anger/Aggression Factors

Berkowitz (1963, 1971) suggests that the transition from anger to aggression is a key factor in interpersonal violence and any arousal enhancing stimuli in conjunction with aggressive cues may generate impulsive, aggressive behavior. Attributions of inadequacy have been shown to serve as a basis for the selection of ineffective procedures and the tendency to utilize overlearned procedures which increases the stress of the situation and thereby increases arousal (Averill, 1982). A sense of arousal, anger, frustration, and loss of control during the period immediately preceding an abusive episode is frequently reported (Bennie & Sclare, 1969; Blumberg, 1974). These descriptions suggest a pattern of emotional overarousal and overreactivity (especially when experienced as anger or loss of control) which contribute to the onset of abusive acts.

Results from comparisons of the arousal of abusers with that of matched controls support that abusers show more emotional reactivity to child behavior (Disbrow, Doerr, & Caulfield, 1977; Frodi & Lamb, 1980; Wolfe, Fairbank, Kelly,

& Bradlyn, 1983). Such arousal can be a significant mediator of aggression when it takes the form of anger (Rule & Nesdale, 1976), and it may explain why abusive parents have difficulty controlling their reactions toward their children despite their desire to do so (Spinetta & Riegler, 1972).

Once an individual is in a state of elevated arousal labeled as "anger," aversive cues in the environment will likely elicit aggression (Bandura, 1973; Berkowitz, 1974; Rule & Nesdale, 1976; Wolfe et al., 1985). Abusive parents often perceive themselves as under stress. The situational cues for the abusive parent involve aversive behavior or features of the child (Wolfe, 1985); the individual parent characteristics may include factors of oversensitivity (Knutson, 1978), disinhibition of aggression (Zillman, 1979), and poor skill repertoire (Novaco, 1978). The child's behavior serves as an aversive cue that elicits aggression from a parent who is already angry and aroused. These feelings may escalate as the parent tries repeatedly and unsuccessfully to control the child's perceived misbehavior. Davitz (1952) found that under conditions of stress and frustration, predominant responses are likely to be emitted. Spence's theory (Logan, 1959) postulated that with more intense stimuli, an increased emotional response occurred. Hull-Spence theory (Logan, 1959) postulated that variables such as practice, drive (motivation), and repeated pairings (habit) increased the strength of a behavioral response.

This offers some theoretical support for the hypotheses that the parent is more likely to utilize the overlearned and overutilized punitive strategies. If the violent response by the parent does successfully terminate the child's aversive behavior, the parent's use of aggressive controls will be reinforced, further increasing the probability of abuse.

Interpersonal Problem-Solving as
Related to Child Abuse

Haythorn (1970) defined stress as an intervening variable between environmental stimuli and behavioral responses which is capable of generating fight or flight response tendencies with organismic arousal. This view is consistent with Selye's (1956) concept that stress is physiological arousal, but also includes psychological aspects of the organism's responses. Lazarus and Launier (1978) define psychological stress as demands that tax or exceed available resources (as appraised by the person involved). They state that how people cope with stress is more important to overall morale, social functioning, and somatic health than the frequency and severity of the stress episodes themselves. They see two main functions of coping: (a) altering the troubled transaction (instrumental, problem-solving, i.e., the altering of the stressful person-environment relationship) and (b) regulating the emotion (palliative, efforts to manage somatic, subjective components such as anxiety, anger, depression). They see a

problem-solving mental set as a key ingredient in the coping process. Furthermore, they believe that if failure is attributed to interference from others, then aggression toward the person "interfering" is elicited. This model is of value in explaining the coping skills of the abusive parent who ascribed interference to the child's misbehavior and thus, acts aggressively toward the child.

A series of investigations by the Hannemann Hospital Group provide evidence that deficiencies in problem-solving thinking are associated with behavioral maladjustment. Deficits in problem-solving cognition were found among a diverse array of socially incompetent samples including poorly adjusted preschool children from disadvantaged environments (Shure, Spivack, & Jaeger, 1971); emotionally disturbed 10 to 12 year old child (Shure & Spivack, 1972); impulsive, institutionalized teenagers (Spivack & Levine, 1964); adolescent psychiatric patients (Platt, Spivack, Altman, & Altman, 1974); youthful incarcerated heroin addicts (Platt, Scura, & Hannon, 1973); and adult psychiatric patients (Platt & Spivack, 1972a, 1972b). Their assessment of problem-solving was based upon scoring subjects' verbal responses to hypothetical problem situations primarily of an interpersonal nature.

Other researchers have agreed with the idea that psychological stress and social maladjustment can arise from ineffective problem solving (Asarnow & Callan, 1985;

D'Zurilla & Goldfried, 1971; Goldfried & D'Zurilla, 1969; Goldfried & Goldfried, 1975; Heppner, 1978; Heppner & Petersen, 1982; Howard & Scott, 1965; Lukton, 1974; Mahoney, 1974; Mechanic, 1968, 1970, 1974; Ritchie, Carscaddon & Morgan, 1984; Nezu, 1985). More specifically, for example, Nezu (1985) found that compared to self-appraised ineffective problem-solvers, self-appraised effective problem-solvers reported less depression, less trait and state anxiety, more internal control orientation, less frequent problems, and less distress associated with these problems. Averill (1982) found that attributions of ineffective procedures and a tendency to utilize overlearned procedures increased stress and arousal. Davitz (1952) reported that stress and frustration lead to utilizing predominant (overlearned) responses. Thus, a vicious, coercive cycle could occur.

More convincing evidence of the importance of interpersonal problem-solving skills in psychological well being comes from assessment of the efficacy of an educational intervention program teaching cognitive problem-solving skills to preschool children (Shure, Spivack, & Gordon, 1972; Spivack & Shure, 1974). This intervention program significantly improved certain dimensions of problem-solving thinking in young children with the behavioral difficulties of overimpulsivity and overinhibition. This intervention also resulted in significant improvements in the social adjustment of these children.

In addition to information relating psychological problems to ineffective strategies, information from studies of effective problem-solvers can be helpful in delineating what deficits may be present in physically abusive parents. Several investigators have studied productive strategies for problem-solving using normative groups and abusing or nonabusing clients in groups.

In a series of studies explicating anger control strategies, Novaco (1975, 1977a, 1977b) suggested that provocations be viewed as a problem to be solved rather than a stimulus to be reacted against. Such a view leads to a focus of attention on the issues involved and allows the individual to avoid responding in ways that would escalate the provocation sequence. Novaco has been effective in decreasing the frequency of reoccurrence of physical abuse of children utilizing cognitive strategies including teaching self-talking, relabelling of arousal as anger, problem-solving, and relaxation training with physically abusive parents.

Meichenbaum, Henshaw, and Himel (1983) studied nonabusive parents to understand how these parents responded to child provocations. A useful and important coping device used by these parents was the perception of the provocation as a problem to be solved. The adoption of this cognitive set allowed other interpersonal and intrapersonal coping

behaviors to be enacted. These authors contend that the theme that underlies coping strategies in these families is a "problem-solving set." D'Zurilla and Nezu (1982) suggest that a problem-solving set with a critical component of "perception of control" (belief that one is capable of solving a given problem effectively) is characteristic of competent individuals who cope with stress. Effective problem solvers inhibit a tendency to respond impulsively and utilize a "stop and think" strategy. Bandura (1977) suggests that self-efficacy expectations are significantly related to superior coping in stress situations. Physical and subjective reactions to aversive events are lessened under conditions of perceived control (Geer, Davison, & Gatchel, 1970). (Contrast these characteristics of effective problem solvers with characteristics found in abusive parents, i.e., overuse of ineffective procedures and overarousal.)

Spivack and Shure (1974) suggest several specific, interrelated cognitive abilities required for effective interpersonal problem-solving. These were the: (a) ability to recognize the presence of social problems, (b) ability to think of general alternative solutions to social problems, (c) ability to consider specific alternative means for solving problems and to evaluate these means in terms of probable effectiveness and social acceptability, (d) ability to consider alternative consequences, and (e) ability to perceive cause-and-effect relationships in interpersonal

events. Shure and Spivack found that the relative importance of these component skills vary developmentally, with the capacity for alternative solution thinking seemingly necessary for efficient interpersonal problem solving across all ages. In an analysis of the content of problem solutions, these authors found that effective problem solvers differed from maladjusted subjects in the kinds of statements they make to themselves to stop and think. The authors suggested that educative-remedial procedures be tailored for each person to rectify the specific cognitive deficiency underlying the impaired capability to solve interpersonal problems.

Thus, the interpersonal problem-solving abilities of the parent, both in a general sense and in dealing with parent-child conflict, are viewed as important factors in the functioning of abusive parents. A precise analysis of the areas of deficiency has implications for both recognizing families which are abusive or have the potential for using abusive strategies as well as treatment to rectify these deficiencies.

Toward an Integration of Antecedent Factors

Given the specific data presented on child abusive parents and the basic data on the relationships of stress, maladjustment, and interpersonal problem solving, the parents' lack of ability to effectively solve interpersonal

problems is viewed as a pivotal variable in child abusive situations.

To summarize into a theoretical postulate, the variables suggested as critical in abusive parenting behavior are:

(a) lack of knowledge of appropriate child management skills and lack of appropriate developmental expectations, (b) conditions of actual or perceived stress with lack of social support, (c) overarousal to child misbehavior based on generalized arousal to child behavior, (d) a propensity to utilize overlearned, aversive controls related to self-perceptions of ineffective parenting skills and/or lack of parenting skills particularly when aroused, and (e) an authoritarian need to control child behavior in an anger prone individual with anger control deficits. Additionally once an aversive interaction begins, the parent has difficulty terminating the coercive sequence which escalates to physical punitiveness. The families increasingly engage in coercive interaction cycles. The physical punishment terminates the child's behavior thus reinforcing the use of punishment. However, child habituation and increasingly negative interactions lead to harsher physical punishment and an abusive cycle.

Many of these hypothesized variables have been shown to vary in physically abusive parents; other have not been assessed. Assessment of child management skills and developmental knowledge in abusive parents has been well documented in single case designs and observational studies

(e.g., Bousha & Twentyman, 1984; Busgass & Conger, 1977, 1978; Friedman et al., 1981; Twentyman & Plotkin, 1982). The variables of anger-control and over-arousal have been less well researched, although some well controlled studies do exist and have been reported in this literature review (Disbrow et al., 1977; Frodi & Lamb, 1980; Wolfe et al., 1983). Studies which assess problem-solving skills are not as well researched. Two studies assessed problem-solving skills of abusive parents with infants or preschoolers. No studies have assessed abusive parents' interpersonal problem-solving skills with latency age (older) children, nor assessed perceptions of competency and valuing in parenting with older children. Also, studies which assess the parent's general perceptions of their ability to effectively approach and solve interpersonal conflict have not been reported.

Using abusing and nonabusing mothers as subjects, the present study examined the mothers': (a) general self perception of interpersonal problem solving using the Problem Solving Inventory (Heppner, 1982), (b) self-esteem and sense of competency as a parent using the Parenting Sense of Competency Scale (Mash & Johnson, 1989), and (c) the parent's knowledge of interpersonal problem-solving strategies in dealing with parent-child conflict with latency age children using Parent-Child Means Ends Problem Solving Test (Shure & Spivack, 1978).

Hypothesis I focused upon the mothers' general self perceptions of interpersonal problem solving and included the following: compared to nonabusive mothers, abusive mothers will show deficits on the three factors of the PSI. That is, they will: (a) report lower interpersonal problem solving confidence, (b) will endorse items reflective of an avoidant style, and (c) report less personal control regarding problems.

Hypothesis II focused upon the mothers' self perception of skill/knowledge and valuing of the parenting role and included the following: compared to nonabusive mothers, physically abusive mothers will report on the PSOC: (a) a lower sense of competency in dealing with parent-child problems and (b) less satisfaction in parenting on the PSOC.

Hypothesis III focused upon the mothers' ability to solve hypothetical parent-child problems as presented on the MEPS-C and included the following: compared to nonabusive mothers, abusive mothers will (a) verbalize fewer alternative means to solve the problems and (b) verbalize a higher proportion of aggressive means.

CHAPTER III

METHODS

Subjects

Forty-eight mothers, of varying age, served as subjects. The mothers were divided equally into three groups: Group I included 16 mothers who were either self-referred or Department of Human Services (DHS) referred for assessment or treatment for physical child abuse, Group II included 16 mothers who were the nonabusive parent in families self-referred or DHS referred for assessment or treatment for physical child abuse, and Group III included 16 mothers of a child who was being assessed or beginning treatment for a behavioral or psychological problem other than any form of child abuse (self-referred or referred through a professional for psychological problems). All subjects in Groups I and II were, in fact, DHS referred. Subjects in Group III were all self-referrals. Subjects were obtained from the Center for Children in Crisis, an assessment center for DHS referrals of extreme child abuse cases; the Memphis City Schools Mental Health Clinics, the Exchange Club Child Abuse Treatment Program; and the Mid-South Hospital Resource Center. The identified patient in the families, i.e., the child who was

physically abused or the child exhibiting psychological or behavioral problems, was in the age range of 5 to 12. Attempts were made to match subjects across groups on the two measures of socioeconomic status: income range and educational level of the parents. The intellectual functioning for all subjects was assessed. As measured by the Shipley-Hartford Institute of Living Scale, all subjects had IQ equivalency of borderline or above. Although no routine screening for psychotic process was administered, no subjects were assessed as psychotic during testing by clinical judgment. No subjects refused to participate in the study, and all subjects completed the assessment instruments. Subjects in Groups I and II did report difficulty understanding the instruments, and were given oral explanations of the instruments.

For the purpose of the study, the definition of physical abuse is that from the Tennessee state statute:

. . . any person who knowingly, purposely, or maliciously, other than by accidental means, treats a child under eighteen (18) years of age in such a manner as to inflict injury on such a child so as to adversely affect its health and welfare is guilty of child abuse. The State further defines bodily injury as a cut, abrasion, bruise, burn, or disfigurement; physical pain, illness or impairment of the function of a bodily member, organ, or

mental faculty. Serious injury (is defined) as an injury which involved a substantial risk of death, unconsciousness; extreme physical pain; protracted and obvious disfigurement; or protracted loss or impairment of the function of a bodily member or organ.

Confirmation of abuse was obtained in the study by:

(a) the mother's acknowledgement that physical abuse of the child had occurred and/or (b) on the basis of the investigation by the Tennessee Department of Human Services, physical abuse was deemed to have occurred. All families tested had reports of significant bodily injury such as scarring and bruises in varying stages from alleged hitting.

Materials

Screening Instruments

Demographic questionnaire. The demographic questionnaire obtained information on age of the child and socioeconomic status of the family. (Refer to Appendix A for a copy of the demographic questionnaire.)

Shipley-Hartford Institute of Living Scale. The Shipley Hartford (Zachary, 1986) is an intellectual screening assessment scale. The scale includes 40 vocabulary items and 20 abstract pattern recognition items and has been shown to correlate approximately 0.80 with the Weschler Adult Intelligence Scale--Revised (Zachary, 1986).

Dependent Measures

Problem-Solving Inventory (PSI). The Problem-Solving Inventory (Heppner, 1986; Heppner & Peterson, 1982) used is a measure of global self-appraisal of one's abilities to solve interpersonal problems. The PSI measured an evaluative awareness of one's problem-solving abilities and style, which is not restricted to any particular problem-solving stage. In addition to a total score, three scales are scored: problem-solving confidence, approach-avoidant style, and personal control. Scores range from 11 to 66 on the confidence scale, from 16 to 96 on the style scale, from 5 to 30 on the control scale, and from 32 to 192 for the total score. Normative data on the PSI are available (Heppner, 1986). Low scores on the PSI indicate perceptions of positive self-confidence, a likelihood of approaching problems, and a likelihood of having personal control. Estimates of internal consistency are as follows: problem-solving confidence, $\alpha = 0.85$; approach-avoidant style, $\alpha = 0.84$; personal control, $\alpha = 0.72$; and total inventory, $\alpha = 0.90$. Estimates of internal consistency range from 0.74 to 0.90. Test-retest reliability coefficients over a two week interval are as follows: problem-solving confidence, $r = 0.85$; approach-avoidance style, $r = 0.88$; personal control, $r = 0.83$; and total inventory, $r = 0.89$ (Heppner & Peterson, 1982). Discriminant validity information indicated that scores were not

significantly correlated with intelligence scores on the WAIS-R nor SAT scores (Heppner, 1986). Construct validity studies supported the view that the PSI does not seem to be related to responses on other measures of problem-solving, e.g., the Means-Ends-Problem-Solving test (Platt & Spivack, 1975). Although the specific value of the correlations were reported, Heppner (1986) reported that the correlations were statistically nonsignificant ($p > .05$). The PSI was able to detect differences between groups of students who had received training in problem solving (via a Posttest-Only Control Group Design). This and other validity studies are detailed in the Manual for the Problem Solving Inventory (Heppner, 1986).

Parenting Sense of Competence Scale (PSOC). The PSOC (Johnston & Mash, 1989) measured parenting satisfaction (value/comfort) and efficacy (skill/knowledge). Scores range from 9 to 54 on the satisfaction (value/comfort) scale and from 8 to 48 on the efficacy (skill/knowledge) scale. PSOC total scores were calculated by summing the 17 items that loaded on the two factors. Higher factor scores are indicative of higher satisfaction and more efficacy, respectively. Factor scores were computed by summing, with equal weights, items loading on each factor. Johnston and Mash (1989) reported Cronbach's alpha coefficients for total score and for each factor as: total score, $\alpha = .79$; satisfaction factor, $\alpha = .75$; and efficacy factor,

alpha = .76. No other reliability data have been reported on this instrument. Normative data were available for the two factors (Johnston & Mash, 1989), as well as data showing significant inverse relationships between perceptions of child behavior problems and factor scores on the PSOC for parents (Mash, Johnston, & Kovitz, 1983). Further, the PSOC has been shown to discriminate mothers of preschool physically abused children and hyperactive children from those of "normal" children and has been related to the interactional behavior of mothers with their hyperactive or physically abused children during play and structured task situations (Mash & Johnston, 1983a, 1983b; Mash, Johnston, & Kovitz, 1983).

Means-Ends Problem-Solving Test, Child-Related Stories (MEPS-C). The MEPS Child-Related stories instrument (Shure & Spivack, 1978) measured parental ability to verbalize the means to solve a problem between a mother and her child or children given a specific, favorable outcome. The task consisted of six situations of parent child problems. A total score is calculated representing the total number of means (solutions) plus the total number of obstacles across all six stories. Means are different types of solutions specified by the subjects such as, demand, ask, talk to the child, etc. Obstacles are verbalizations by the mothers during their elaborations of possible difficulties such as, "the child doesn't answer when asked a question." For

further information on scoring, see Shure and Spivack (1978). Reliability data have not been published on this instrument. Validity data are reported in Shure and Spivack (1978). From the information given from a single study of 40 mothers, it was impossible to ascertain the adequacy of these validity data as no data were reported. Shure (April, 1988, personal communication) did not provide further details. However, since no better instrument was found which presented specific situations of parent-child interactions, this instrument was utilized. The authors reported that scores on the instrument were significantly correlated with the mother's style of handling real childrearing problems for girl's behavior, and the mother's ability to solve adult problems (Shure & Spivack, 1978).

Procedure

At the Center for Children in Crisis and the MidSouth Hospital Resource Center, data collection occurred as part of the standard intake or assessment batteries. At the Memphis City Schools Mental Health Clinic, parents gave their name and number to the school counselor and were then contacted by the principal examiner to set up an appointment time and place for the study. Although offices at MidSouth were available, all parents from the school system were tested in their homes. At the Exchange Club Child Abuse Program, mothers gave verbal consent to counselors agreeing to the study. The examiner then met with the mothers at the Exchange Club facility or at their homes for purposes of data

collection. All subjects were assured of confidentiality, were informed of the purpose of the study, and were then asked to sign a consent form. (See Appendix B for a copy of the consent form signed by the subjects.) After signing the consent, the subjects were asked to complete the demographic questionnaire and the Shipley-Hartford. If the intellectual quotient was within the borderline range or higher, the mothers were given the PSI, then the PSOC, and lastly the examiner individually administered the MEPS-C. If the intellectual quotient was below the minimum criteria, the mother was thanked for her participation and excused from further testing; this occurred on three occasions, twice with Group I mothers and once with a Group II mother.

CHAPTER IV

RESULTS

Chi Square or Analysis of Variance (ANOVA) procedures were used to assess group differences on the demographic variables. No group differences were found for the variables of marital status, number of children in the home, and having had parenting instruction via courses or counselling. (See Appendix C for summary of data on demographics and dependent measures.) Group differences were found on the ANOVA for the variable of socioeconomic status (SES) as measured by the Four Factor Index of Social Status (Hollingshead, 1975) ($F(2,45) = 39.30, p < 0.00001$; (Group I $M = 17.81, SD = 5.75$; Group II $M = 21.19, SD = 6.21$; Group III $M = 38.56, SD = 8.93$)). Using a Neuman-Keuls multiple range test, the Group III subjects (nonabusive families) were found to have significantly higher SES than did subjects in Groups II and III (families where child abuse had occurred). Because of the SES differences found among the three groups, further analyses of group differences were done with Analysis of Covariance (ANCOVA) procedures.

As the two abusive family groups did not differ significantly on SES, differences between these two groups on

the dependent measures were analyzed using independent t-tests (see Appendix C for values). No significant differences were found for any of the measures.

ANOVA procedures were used to assess group differences for the Shipley IQ equivalency scores. The ANOVA yielded significant group differences on this measure ($F(2,45) = 2.95; p < 0.00001$). However, when an ANCOVA procedure was utilized to factor out SES differences, no significant differences remained due to intellectual scores.

Hypothesis 1 predicted differences on the three factors of the PSI (problem-solving confidence, approach-avoidant style, and personal control) and the PSI total score, with abusive mothers reporting less competency than mothers in abusive families or controls. To adjust for differences on the Hollingshead variable, ANCOVAs were used to assess group differences. No significant differences were found for any of the PSI measures. Thus, hypothesis 1 was not supported.

Hypothesis 2 predicted that, compared to mothers in abusive families or controls, abusive mothers would differ on the two PSOC factors; they would report less skill-knowledge and less value-comfort. Using ANCOVAs to adjust for differences on the Hollingshead variable, no group differences were found for either variable. Therefore, hypothesis 2 was not supported. For purposes of comparing these data to those published for a sample of abusive mothers with preschoolers and a normative sample of parents of 4 to 9

year old children, means and standard deviations on the PSOC for this study sample are presented. The statistics are as follows for Groups I, II, and III respectively: (a) skill/knowledge scale: \underline{M} = 19.13, \underline{SD} = 6.18; \underline{M} = 19.56, \underline{SD} = 5.55; \underline{M} = 20.44, \underline{SD} = 8.93; (b) value/comfort scale: \underline{M} = 30.81, \underline{SD} = 10.55; \underline{M} = 36.50, \underline{SD} = 7.91; \underline{M} = 42.00, \underline{SD} = 6.68. Mash, Johnston, and Kovitz (1983) reported abusive mothers scores as \underline{M} = 24.80 on skill/knowledge and \underline{M} = 32.87 on value/comfort. Johnston and Mash (1989) reported the mothers' scores on a normative sample to be as follows: efficacy (skill/knowledge) \underline{M} = 25, \underline{SD} = 6; satisfaction (value/comfort) \underline{M} = 37, \underline{SD} = 6. (Note: normative scores on the satisfaction scale are based on one less item than current study scores and other previous studies scores.)

Hypothesis 3 predicted differences on the MEPS-Child Total score with the abusive mothers scoring lower than mothers in abusive families or controls. Using an ANCOVA to adjust for differences on the Hollingshead variable, no group differences were found. Thus, hypothesis 3 was not supported; abuse per se was not a significant factor in group differences.

To further examine the data on the MEPS-Child, means and standard deviations were obtained separately for each of the six stories. Additionally, responses on the MEPS-C were categorized by type, with means and standard deviations obtained separately for certain types of solutions: the

number of (a) forceful solutions, (b) punishment solutions, (c) demanding solutions, and (d) solutions using "shoulds" were analyzed separately. After adjusting for the Hollingshead variable, no significant differences were found on the ANCOVAs for the separate stories nor for the types of solutions used.

CHAPTER V

DISCUSSION

Within the limits of rigor possible in a field study, the current study attempted to control variables shown to be relevant in the child abuse literature. However, despite these attempts, differences occurred on some of these variables. Although no significant differences were found between groups related to marital status, number of children in the home, nor having had parenting education, significant differences were found on the Shipley-Hartford variable and the Hollingshead variable. Differences among the groups on these two demographic variables strongly influenced the ability to match groups and the interpretation of results obtained. First, the a priori criteria set for intellectual functioning was a borderline score or higher on the Shipley-Hartford Institute of Living Scale WAIS-R equivalency score. While this criteria was met, as noted earlier, mothers in Groups I and II did report difficulty understanding some of the items. Group III mothers' did not report such difficulty. The mothers' questions regarding test items were answered, but the level of understanding and processing of information may have been different for mothers

in the three groups. Thus, differences in intellectual functioning may be a confounding factor or may be related to abuse potential. Only one of the instruments (PSI) has been shown to be independent of intellectual measures; however, this independence may not hold true at borderline levels of intellectual functioning. After adjusting for SES differences, no significant differences remained for the Shipley IQ equivalency score.

Second, there were substantial differences between groups on the Hollingshead Four Factor Index of Socioeconomic Status. The two abusive family groups (I and II), while not reliably different from each other, differed significantly from Group III.

The goal of subject recruitment had been to match subjects on several demographic variables including SES and intellectual functioning. Yet the resulting sample obtained was significantly different across groups on both of these variables. There are at least two possible explanations related to the difficulty with matching in the current study. The abusive mother subjects were very difficult to obtain. Furthermore, finding nonabusive mothers to match on socioeconomic and intellectual functioning was also difficult in spite of concerted efforts and cooperation by the school mental health system, numerous community mental health facilities, and mental health service systems for economically stressed families. Mash, Johnston, and Kovitz

(1983) reported similar difficulties in finding lower SES controls interested in volunteering for their study related to abusive families. Perhaps, lower SES families are less likely to voluntarily present for mental health services; thus, it is not surprising that the subjects in the nonabusive groups were higher SES.

An alternative perspective is that it is difficult to obtain higher SES abusive families. A long debated question within the child abuse area has been whether there is a greater frequency of abuse at lower SES levels or that the incidence of reporting is greater for lower SES families compared to higher SES families. There are varying interpretations in the literature about the reportedly higher incidence of abusive families at lower SES levels (Gil, 1970; Straus, Gelles, & Steinmetz, 1980). Several authors have suggested that there is differential reporting with official reports overrepresentative of low income families (Newberger, Reed, Daniel, Hyde, & Kotelchuck, 1977). Thus, several issues may be involved in the difficulty of obtaining a broader, matched sampling of SES families who are and are not abusive.

The assumption of subject recruitment was that the mothers would all be volunteers. While subjects were technically volunteers, there is some possibility that this was not genuinely the case for Group I and II subjects. The abusive mothers were all referred for evaluation or treatment

by the Department of Human Services in Tennessee. Therefore, the mothers were not involved in treatment at their own initiative. The subjects in Group III were all mothers who had voluntarily presented for treatment at a mental health facility because of their own concerns over difficulties managing the identified child's behavior. This difference might bear further study; several authors (Bly, 1988; Johnson, 1988; Margolian & Larson, 1988) have suggested differences occur in treatment with involuntary versus voluntary clients. A possible speculation is that persons who themselves identify a problem and seek help for the problem will be more motivated to work to rectify the problem. Additionally, the difference in the way the families were involved in the mental health systems could contribute to response style differences. For example, when a parent or their spouse is under investigation for child abuse, there may be a more guarded, defensive response style or a need to present oneself and spouse in the most favorable light, denying problems. The parent may have misperceptions of their abilities and may report greater efficacy than is actually present. Thus, this possible differential volunteer bias across groups may have affected study results.

In the present study, several measures related to interpersonal problem-solving skills were utilized in attempt to determine if the ability to resolve conflict is different in physically abusive parents. The general measure

of self-perception of interpersonal problem-solving skills used was the Problem Solving Inventory (PSI). The model presented led to predictions of lower self-perceived efficacy as reported on the PSI. This hypothesis was not supported as no significant differences were found between the three groups in this study on this measure. Group differences on the PSI were accounted for by SES.

As problems in parent child interactions are likely to lead to abuse, a more specific parent-child measure was utilized. The Parenting Sense of Competency Scale included two scales: self-perceived efficacy (skill/knowledge) and self-perceived satisfaction (value/comfort). The model presented led to predictions of less efficacy and less satisfaction reported by the abusive mothers. This hypothesis was not supported as no significant differences were found on either scale of the PSOC. Group differences on the PSOC were accounted for by SES.

As data have been published on the PSOC, groups in the present study could be compared to other samples. Although no statistical analyses of these differences would be appropriate, informal comparison suggest issues for further study. Comparisons lead to two interesting observations. One, scores for the abusive mothers in the present study were lower on the value/comfort scale than those reported in normative data (Johnston & Mash, 1989). Thus, abusive mothers reported less satisfaction with the parenting role

than was reported by a normative sample of mothers and fathers. This lack of comfort or ease in the parenting role can be related to perceived parenting stress and frustration in parenting which in turn may increase the likelihood that frustration and anger are directed toward the child.

Second, all three groups in the present study reported less efficacy (skill/knowledge) on the PSOC than that reported in the normative samples (Johnston & Mash, 1989). That is, mothers in all groups in the present study viewed themselves as less efficient in parenting skills and knowledge than did normative samples of mothers and fathers. Mash, Johnston, and Kovitz (1988) found that both scales of the PSOC distinguished physically abusive mothers from a group of nonabusive mothers who were recruited via newspapers and randomly selected door-to-door sampling. It is to be noted that there were differences between their normative sample and the nonabusing sample in the present study. Unlike the present study, none of the children in their nonabusing sample were reported to have any behavioral or medical problems. Also, the children were preschoolers, a younger population of children than those in the current study.

Mothers in the present study control group had voluntarily acknowledged a need for help in determining how to deal with their child's behavior, i.e., had acknowledged less skill/knowledge. Many of the control group subjects

were mothers whose children had symptoms of hyperactivity. As these children do present extra parenting demands, this could lead to perceptions of less skill or knowledge in parenting. Perhaps the PSOC can distinguish problem families generally from nonproblem families, but does not sufficiently distinguish between families presenting different stresses in parenting.

The PSI and the PSOC assessed the parent's self-appraisal related to interpersonal problem solving and their satisfaction and efficacy as parents. The Means Ends Problem-Solving Test--Child Related Stories (MEPS-C) provided a more direct measure as it presented hypothetical problems. After controlling for SES differences via ANCOVA, no differences were found on the MEPS-C total score, separate problem stories, nor types of problem solutions. Thus, Hypothesis 3 was not supported.

Results from this study suggest that the abusive mother or mother in an abusive family does not see herself as different in effective problem-solving from mothers having a child they perceive as needing psychological help. This held true for a general sense of efficacy, a parenting sense of efficacy and valuing, and for ability to generate alternatives to hypothetical problems in parent-child interactions.

The above suggests that mothers of children in treatment may all perceive themselves as having difficulty with

parenting and be deficient in child related problem-solving skills. Comparisons with the normative data available on the PSOC lends some support for this hypothesis.

It is important to note that these findings are limited to the experimental setting where mothers were asked to complete questionnaires and respond to hypothetical questions. Thus, another question is raised as to whether abusive mothers are different from mothers who have children who present parenting problems per se or whether abusive mothers are different in their ability to utilize skills, particularly in stressful in vivo interactions. For the abusive mother to utilize such knowledge in real-life is likely more problematic. Thus, perhaps the present study is not a good test of the proposed model, that under high stress conditions and high arousal, abusive parents would overutilize overlearned inappropriate parenting procedures, i.e., coercive, punitive, aggressive styles. The problem may be that, rather than a deficiency in effective parenting skills, the abusive parent has difficulty applying such skills and uses the overlearned, inappropriate skills at the moment of parent-child stress or conflict.

Given the broad implication for treatment of parenting, further assessment of this question is needed. Further examination of this issue might include use of: (a) a larger sample, (b) a sample matched on SES, intelligence, and other relevant demographic variables, (c) testing in more

naturalistic settings, and (d) the use of analog studies to provide more experimental rigor. Additionally, to further test the assumptions of the proposed model, studies need to address hypervigilance or arousability; anger control and anger proneness; authoritarianism; real and/or perceived stress; developmental knowledge; overuse of overlearned, coercive tactics under stress; and increasingly punitive interaction style.

Certainly, the generalizability of this study is poor due to limited sample size and the confounding of demographic variables. Further, the correlational nature of the study negates causal, etiological statements. The availability of subjects is a major difficulty in this research area. Most abusive family systems are insular and do not want further involvement with the mental health network. When one begins to look further at variables such as the age of the child, the sex of the abusive parent, the level of stress, and socioeconomic factors, obtaining an adequate sample size is an extremely difficult task. Nonetheless, more carefully controlled research with this population is much needed to test conceptual models with direct, practical implications for assessment and treatment, such as the model proposed herein.

Given the confounding which occurred in the present study, and the many difficulties in comparing samples from different SES levels, it is obviously critically important to

match on SES status as well as to assess across a broader SES range than just lower SES families. Additionally, there were differences seen which could be related to intellectual functioning. Thus, future studies need to control not only for SES but also for intellectual level of functioning, particularly when sampling lower SES families.

REFERENCES

- Asarnow, J. R., & Callan, J. W. (1985). Boys with peer adjustment problems: Social cognitive processes. Journal of Consulting and Clinical Psychology, 5, 80-87.
- Averill, J. R. (1982). Anger and aggression: An essay on emotion. New York: Springer-Verlag Press.
- Azar, S. T., Robinson, D. R., Hekimian, E., & Twentyman, C. T. (1984). Unrealistic expectations and problem-solving ability in maltreating and comparison mothers. Journal of Consulting and Clinical Psychology, 52, 687-691.
- Bandura, A. (1972). The role of modelling process in personality development. In C. S. Lavatelli and F. Stendler (Eds.) (pp. 334-343). Readings in child behavior and development. New York: Harcourt, Brace, & Jovanovich.
- Bandura, A. (1973). Aggression: A social learning analysis. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1977). Self efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.
- Bauer, W. D., & Twentyman, C. T. (1985). Abusing, neglecting, and comparison mothers' response to child-related and non-child-related stressors. Journal of Consulting and Clinical Psychology, 53, 335-343.

- Bennie, E. H., & Sclare, A. B. (1969). The battered child syndrome. American Journal of Psychiatry, 125, 975-979.
- Berkowitz, L. (1963). Aggression: A social psychological analysis. New York: McGraw Hill.
- Berkowitz, L. (1970). The contagion of violence: A S-R mediational analysis of some effects of observed aggression. In W. J. Arnold & M. M. Page (Eds.), Nebraska symposium on motivation (Vol. 18), (pp. 95-135). Lincoln: University of Lincoln Press.
- Berkowitz, L. (1974). Some determinants of impulsive aggression: Role of mediated associations with reinforcements for aggression. Psychological Review, 81, 165-176.
- Blumberg, M. L. (1974). Psychopathology of the abusing parent. American Journal of Psychotherapy, 28, 21-29.
- Bly, W. (1988). Self help and child abuse. Contemporary Family Therapy: An International Journal, 10, 243-255.
- Bousha, D. M., & Twentyman, C. T. (1984). Mother-child interactional style in abuse, neglect, and control groups: Naturalistic observation in the home. Journal of Abnormal Psychology, 93, 106-114.
- Bugenthal, D. B., Blue, J., & Cruzcosca, M. (1989). Perceived control over caregiving outcomes: Implications for child abuse. Developmental Psychology, 25, 532-539.
- Burgess, R. L. (1978). Child abuse: A situational analysis. In B. B. Lahey & A. E. Kazdin (Eds.), Advances in clinical child psychology, (pp. 142-172). New York: Plenum Press.

- Burgess, R. L., & Conger, R. D. (1977). Family interaction patterns related to child abuse and neglect: Some preliminary findings. Child Abuse and Neglect, 1, 269-277.
- Burgess, R. L., & Conger, R. D. (1978). Family interaction in abusive, neglectful, and normal families. Child Development, 49, 1163-1173.
- Child Abuse Act of 1978, Tennessee Code Ann. 39-601.
- Cicchietti, D., Taraldson, B. J., & Egeland, B. (1978). Perspectives in the treatment and understanding of child abuse. In A. P. Goldstein (Ed.), Prescriptions for Child Mental Health and Education, (pp. 301-391). New York: Pergamon.
- Crimmins, D., Bradlyn, A. S., St. Lawrence, J. S., & Kelly, J. A. (1982). In-clinic training to improve the parent-child interaction skills of a neglectful mother. Unpublished manuscript, University of Mississippi Medical Center.
- Crozier, J., & Katz, R. C. (1979). Social learning treatment of child abuse. Journal of Behavior Therapy and Experimental Psychology, 10, 213-220.
- Davitz, J. R. (1952). The effects of previous training on post frustration behavior. Journal of Abnormal and Social Psychology, 47, 307-315.
- Denicola, J., & Sandler, J. (1980). Training child abusive parents in child management and self control skills. Behavior Therapy, 11, 263-270.

- Disbrow, M. A., Doerr, H., & Caulfield, C. (1977). Measuring the components of parents' potential for child abuse and neglect. Child Abuse and Neglect, 1, 279-286.
- Donnerstein, E., & Wilson, D. W. (1976). The effects of noise and perceived control upon ongoing and subsequent aggressive behavior. Journal of Personality and Social Psychology, 34, 749-783.
- Doran, L. D. (1981). Mothers' disciplinary responses under controllable and uncontrollable stress: A child abuse analogue. Ann Arbor: University Microfilms International.
- D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. Journal of Abnormal Psychology, 78, 107-126.
- D'Zurilla, T. J., & Nezu, A. M. (1982). Social problem solving in adults. In P. Kendall (Ed.), Advances in cognitive behavioral research and therapy, (pp. 201-274). Hackensack, NJ: Academic Press.
- Egeland, B., Breitenbucher, M., & Rosenberg, D. (1980). Prospective study of the significance of life stress in the etiology of child abuse. Journal of Consulting and Clinical Psychology, 48, 195-205.
- Elmer, E. (1977). A follow-up study of traumatized children. Pediatrics, 59, 273-279.
- Engfer, A., & Schneewind, K. A. (1982). Causes and consequences of harsh parental punishment. Child Abuse and Neglect, 16, 129-139.

- Estes, R. (1944). An experimental study of punishment. Psychology Monographs, 57, 263.
- Evans, A. L. (1981). Personality characteristics and disciplinary attitudes of child abusing mothers. Saratoga, CA: R&E Publishers.
- Freidrich, W. N., & Einbender, A. J. (1983). The abused child: A psychological review. Journal of Clinical Child Psychology, 12, 244-256.
- Friedrich, W. N., & Wheeler, K. K. (1982). The abusing parent revisited: A decade of psychological research. The Journal of Nervous and Mental Disease, 107(10), 577-587.
- Friedman, R. M., Sandler, J., Hernandez, M., & Wolfe, D. A. (1981). Child abuse. In E. J. Mash & L. G. Terdal (Eds.), Behavioral assessment of childhood disorders, (pp. 221-255). New York: Guilford Press.
- Frodi, A., & Lamb, M. E. (1980). Child abusers' responses to infant smiles and cries. Child Development, 51, 238-241.
- Gaines, R., Sandgrund, A., Green, A. N., & Power, E. (1978). Etiological factors in child maltreatment: A multivariate study of abusing, neglecting, and normal mothers. Journal of Abnormal Psychology, 87, 531-540.
- Garbarino, J. (1981). An ecological approach to child maltreatment. In L. Pelton (Ed.), The social context of child abuse and neglect, (pp. 228-267). New York: Human Science Press.
- Geen, R. G. (1978). Effects of attack and uncontrollable noise on aggression. Journal of Research in Personality, 12, 15-29.

- Geer, J. D., Davison, G. C., & Gatchel, R. J. (1970). Reduction of stress in humans through nonveridical aversive stimulation. Journal of Personality and Social Psychology, 16, 731-738.
- George, C., & Main, M. (1979). Social interactions of young abused children: Approach, avoidance, and aggression. Child Development, 50, 306-318.
- Gil, D. G. (1970). Violence against children: Physical child abuse in the United States. Cambridge: Harvard Press.
- Goldfried, M. R., & D'Zurilla, T. J. (1969). A behavioral-analytic model for assessing competence. In C. D. Spielberger (Ed.), Current Topics in Clinical and Community Psychology (Vol. 1), (pp. 151-192). New York: Academic Press.
- Goldfried, M. R., & Goldfried, A. P. (1975). Cognitive change methods. In F. H. Kanfer & A. P. Goldstein (Eds.), Helping People Change, (pp. 89-116). New York: Pergamon.
- Goode, W. J. (1971). Force and violence in the family. Journal of Marriage and the Family, 33, 624-626.
- Haythorn, W. W. (1970). Interpersonal stress in isolated groups. In J. E. McGrath (Ed.), Social and psychological factors in stress, (pp. 159-175). New York: Holt, Rinehart, & Winston.
- Heppner, P. P. (1978). A review of the problem-solving literature and its relationship to the counseling process. Journal of Counseling Psychology, 25, 366-375.

- Heppner, P. P. (1986). Manual for the Problem-Solving Inventory. Paper presented at the annual meeting of the American Psychological Association, Washington, D.C.
- Heppner, P. P., & Petersen, C. H. (1982). The development and implications of a personal problem-solving inventory. Journal of Counseling Psychology, 29, 66-75.
- Herbruck, C. C. (1979). Breaking the cycle of child abuse. Minneapolis, MN: Winston Press.
- Hoffman-Plotkin, D., & Twentyman, C. T. (1984). A multimodal assessment of behavioral and cognitive deficits in abused and neglected preschoolers. Child Development, 55, 794-802.
- Hollingshead, A. B. (1975). Four-factor index of social status. New Haven, CT: Yale University, Department of Sociology.
- Howard, A., & Scott, R. (1965). A proposed framework for the analysis of stress in the human organism. Behavioral Science, 10, 141-160.
- Howes, C., & Eldredge, R. (1985). Responses of abused, neglected, and non-maltreated children to the behaviors of their peers. Journal of Applied Developmental Psychology, 6, 261-270.
- Hunter, B. (1990). Methods of meta analysis. Paper presented at American Psychological Society, Dallas, TX.
- Hyman, C. A. (1977). A report on the psychological test results of battering parents. British Journal of Social and Clinical Psychology, 16, 221-224.

- Jacobson, R. S., & Straker, G. (1982). Peer group interaction of physically abused children. Child Abuse and Neglect, 6, 321-327.
- Johnson, W. B. (1988). Child-abusing parents: Factors associated with successful completion of treatments. Psychological Reports, 63, 434.
- Johnston, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. Journal of Clinical Child Psychology, 18, 167-175.
- Justice, B., Calvert, A., & Justice, R. (1985). Factors mediating child abuse as a response to stress. Child Abuse and Neglect, 9, 359-363.
- Kelly, J. A. (1983). Treating child-abusive families: Interventions based on skills training principles. New York: Plenum Press.
- Kempe, C. H., & Helfer, R. E. (1972). Helping the battered child and his family. Philadelphia: J.P. Lippincott.
- Kent, J. T. (1976). A follow-up study of abused children. Journal of Pediatric Psychology, 1, 25-31.
- Kinard, E. M. (1980). Emotional development in physically abused children. American Journal of Orthopsychiatry, 50, 686-696.
- Kinard, E. M. (1982). Child abuse and depression: Cause or consequence. Child Welfare, 61, 403-413.
- Kotelchuck, M. (1982). Child abuse and neglect: Prediction and misclassification. In B. H. Starr (Ed.), Child abuse prediction: Policy implications, (pp. 67-104). Cambridge, MA: Ballinger Publishing.

- Knutson, J. F. (1978). Child abuse as an area of aggression research. Journal of Pediatric Psychology, 3, 20-27.
- Lahey, B. B., Conger, R. D., Atkeson, B. M., & Treiber, F. A. (1984). Parenting behavior and emotional status of physically abusive mothers. Journal of Consulting and Clinical Psychology, 52, 1062-1071.
- Larrance, D. L., & Twentyman, C. T. (1983). Maternal attributions and child abuse. Journal of Abnormal Psychology, 92, 449-457.
- Lazarus, R. S., & Launier, R. (1978). Stress-related transactions between person and environment. In L. A. Pervin & M. Lewis (Eds.), Perspectives in Interactional Psychology, (pp. 287-327). New York: Plenum Press.
- Logan, F. A. (1959). The Hull-Spence approach. In S. Koch (Ed.), Psychology: A Study of a Science, Vol. 2. General Systematic Formulations, Learning, and Special Processes (pp. 293-358). New York: McGraw-Hill.
- Lorber, R., Felton, D. K., & Reid, J. B. (1984). A social learning approach to the reduction of coercive processes in child abusive families: A molecular analysis. Advances in Behavior Research and Therapy, 6, 29-45.
- Lukton, R. (1975). Crisis theory: Review and critique. Social Science Review, 48, 382-402.
- Mahoney, M. J. (1974). Cognition and behavior modification. Cambridge, MA: Ballinger.

- Margolin, L., & Larson, O. W. (1988). Assessing mothers' and fathers' violence toward children as a function of their involuntary participation in family work. Journal of Family Violence, 3, 209-224.
- Martin, M. J., & Walters, J. (1982). Familial correlates of selected types of child abuse and neglect. Journal of Marriage and the Family, 2, 267-276.
- Mash, E. J., & Johnston, C. (1983). Sibling interactions of hyperactive and normal children and their relationship to reports of maternal stress and self-esteem. Journal of Clinical Child Psychology, 12, 91-99.
- Mash, E. J., Johnston, C., & Kovitz, K. (1983). A comparison of the mother-child interactions of physically abused and non-abused children during play and task situations. Journal of Clinical Child Psychology, 12, 337-346.
- Mastria, E. O., Mastria, M. A., & Harkins, J. C. (1979). Treatment of child abuse by behavioral intervention: A case report. Child Welfare, 58, 253-261.
- Mechanic, D. (1968). The study of social stress and its relationship to disease. In D. Mechanic (Ed.), Medical Sociology, (pp. 294-322). New York: Free Press.
- Mechanic, D. (1970). Some problems in developing a social psychology of adaptation to stress. In J. E. McGrath (Ed.), Social and Psychological Factors in Stress, (pp. 104-123). New York: Holt, Rinehart and Winston.

- Mechanic, D. (1974). Social structure and personal adaptation: Some neglected dimensions. In G. Coelho, D. M. Hamburg, & J. E. Adams (Eds.), Coping and Adaptation, (pp. 32-44). New York: Basic Books.
- Meichenbaum, D., Henshaw, D., & Himel, N. (1983). Coping with stress as a problem-solving process. In W. Krohne & L. Laux (Eds.), Achievement, Stress, and Anxiety, (pp. 127-142). Washington, D.C.: Hemisphere Press.
- Melnick, B., & Hurley, J. (1969). Distinctive personality attributes of child-abusing mothers. Journal of Consulting Clinical Psychology, 33, 746-749.
- Merrill, E. J. (1962). Physical abuse of children: An agency study. In V. DeFrancis (Ed.), Protecting the Battered Child, (pp. 1-15). Denver, CO: American Human Society.
- Milner, J. S., & Wimberley, R. C. (1980). Prediction and explanation of child abuse. Journal of Clinical Psychology, 35, 95-100.
- Newberger, E. H., Reed, R. B., Daniel, J. H., Hyde, J. N., & Kotelchuck, M. (1977). Pediatric social illness: Towards an etiologic classification. Pediatrics, 60, 178-185.
- Nezu, A. M. (1985). Differences in psychological distress between effective and ineffective problem solvers. Journal of Counseling Psychology, 32, 135-138.
- Novaco, R. W. (1975). Anger control: The development and evaluation of an experimental treatment. Lexington, MA: Health.

- Novaco, R. W. (1977a). Stress inoculation: A cognitive therapy for anger and its application to a case of depression. Journal of Consulting and Clinical Psychology, 45, 600-608.
- Novaco, R. W. (1977b). A stress inoculation approach to anger management in the training of law enforcement officers. American Journal of Community Psychology, 5, 327-346.
- Novaco, R. W. (1978). Anger and coping with stress: Cognitive-behavioral intervention. In J. P. Foreyt & D. P. Rathjen (Eds.), Cognitive behavioral therapy: Research and Application, (pp. 135-173). New York: Plenum Press.
- O'Hearn, T. A. (1975). A comparison of fathers in abusive situations with fathers in nonabusive situations. (Doctoral dissertation, University of Denver.) Dissertation Abstracts International, 35, 3591B.
- Parke, R. D., & Collmer, C. W. (1975). Child abuse: An interdisciplinary analysis. In E. M. Hetherington (Ed.), Review of child development research (Vol. 5), (pp. 509-590). Chicago: University of Chicago Press.
- Parke, R. D., & Duer, J. L. (1972). Schedule of punishment and inhibition of aggression in children. Developmental Psychology, 7, 266-269.
- Patterson, G. (1976). The aggressive child: Victim and architect of a coercive system. In L. Hammereyck, E. Mash, & L. Hailey (Eds.), Behavior Modification and Families, (pp. 267-316). New York: Blummer/Mazel.

- Patterson, G. (1977). A performance theory of coercive family interaction. In L. G. Cairns (Ed.), Social interaction: Methods, analysis, and illustrations, (pp. 119-162). Chicago: University of Chicago Press.
- Paulson, M. J., Schwemer, G. T., & Bendel, R. B. (1976). Clinical application of the PD, MA, and (OH) experimental MMPI scales to further understanding of abusive parents. Journal of Clinical Psychology, 32, 558-564.
- Paulson, M. J., Strouse, L., & Chaleff, A. (1980). Further observations on child abuse: An A-posteriori examination of group therapy notes. Journal of Clinical Child Psychology, 11, 241-247.
- Perry, M. A., Wells, E. A., & Doran, L. D. (1983). Parent characteristics in abusing and nonabusing families. Journal of Clinical Child Psychology, 12, 329-336.
- Platt, J. J., Scura, W., & Hannon, J. (1973). Problem-solving thinking of youthful incarcerated heroin addicts. Journal of Community Psychology, 1, 278-281.
- Platt, J. J., & Spivack, G. (1972a). Problem-solving thinking of psychiatric patients. Journal of Consulting and Clinical Psychology, 39, 148-151.
- Platt, J. J., & Spivack, G. (1972b). Social competence and effective problem-solving thinking in psychiatric patients. Journal of Clinical Psychology, 26, 3-5.

- Platt, J. J., & Spivack, G. (1975). Manual for the Means-Ends Problem-Solving Procedure (MEPS): A Measure of interpersonal cognitive problem solving skill. Philadelphia: Department of Mental Health Sciences, Hahnemann.
- Platt, J. J., Spivack, G., Altman, N., Altman, D., & Pfizer, S. B. (1974). Adolescent problem-solving thinking. Journal of Consulting and Clinical Psychology, 42, 787-793.
- Reid, J. B., Taplin, P., & Lorber, R. (1981). A social interactional approach to the treatment of abusive families. In R. B. Stuart (Ed.), Violent Behavior: Social Learning Approaches to Prediction, Management, and Treatment, (pp. 83-101). London: Cambridge Press.
- Ritchey, K. M., Carscaddon, D. M., & Morgan, C. H. (1984). Problem-solving appraisal versus hypothetical problem-solving. Psychological Reports, 55, 815-818.
- Robertson, K. R. (1984). Comparison of physical child abuse, sexual child abuse, and child neglect. (Unpublished manuscript.)
- Rosen, B. (1974). Interpersonal values among child abusive women. Psychological Reports, 43, 819-822.
- Rule, B. G., & Nesdale, A. R. (1976). Emotional arousal and aggressive behavior. Psychological Bulletin, 83, 851-863.
- Sandler, J., VanDercar, C., & Milhoan, M. (1978). Training child abusers in the use of positive reinforcement practices. Behavior Research and Therapy, 16, 169-175.

- Scott, P. D. (1973). Fatal battered baby cases. Medicine, Science, and the Law, 13, 197-206.
- Scott, W. O., Baer, G., Christoff, K. A., & Kelly, J. A. (1984). The use of skills training procedures in the treatment of a child-abusive parent. Journal of Behavior Therapy and Experimental Psychiatry, 15, 329-336.
- Selye, H. (1956). The stress of life. New York: McGraw-Hill.
- Shure, M. B., & Spivack, G. (1972). Means-ends thinking, adjustment and social class among elementary school-aged children. Journal of Clinical Psychology, 38, 348-353.
- Shure, M. B., & Spivack, G. (1978). Problem-solving techniques in childrearing. San Francisco: Jossey-Bass.
- Shure, M. B., Spivack, G., & Gordon, R. (1972). Problem-solving thinking: A preventative mental health program for preschool children. Reading World, 11, 259-273.
- Shure, M. B., Spivack, G., & Jaeger, M. A. (1971). Problem-solving thinking and adjustment among disadvantaged preschool children. Child Development, 42, 1791-1803.
- Silber, S. M. (1986). Patterns of interactions in abusing and nonabusing families. Dissertation Abstracts International, 46, 2467.
- Silver, L. B., Dublin, C. C., & Lourie, R. S. (1969). Does violence breed violence? Contribution from a study of the child abuse syndrome. American Journal of Psychiatry, 126, 404-407.

- Smith, S. M., & Hanson, R. (1975). Interpersonal relationships and child-rearing practices in 214 parents of battered children. British Journal of Psychiatry, 127, 513-525.
- Spinetta, R. J. (1978). Parental personality factors in child abuse. Journal of Consulting and Clinical Psychology, 46, 1409-1414.
- Spivack, G., & Levine, M. (1963). Self-regulation in acting out and normal adolescents. Washington, D.C.: Report M-4531, National Institute of Health.
- Spivack, G., & Shure, M. B. (1974). Social adjustment of young children: A cognitive approach to solving real-life problems. San Francisco: Jossey-Bass.
- Starr, R. H. (1982). A research based approach to the prediction of child abuse. In R. H. Starr (Ed.), Child abuse prediction: Policy implications, (pp. 105-108). Cambridge, MA: Ballinger Publishing.
- Steele, B. F. (1970). Parental abuse of infants and small children. In E. J. Anthony & T. Benedik (Eds.), Parenthood: Its psychology and psychopathology, (pp. 449-478). Boston: Little.
- Steele, B., & Pollock, C. (1968). A psychiatric study of parents who abuse infants and small children. In R. Helfer & C. H. Kempe (Eds.), The battered child (pp. 103-147). Chicago: University of Chicago Press.

- Stultz, S. L. (1976). Child rearing attitudes of abusive mothers: A controlled study. (Doctoral dissertation, Cornell University.) Dissertation Abstracts International, 37, 1419B.
- Susman, E. J., Trickett, P. K., Iannotti, R. J., Hollenbeck, B. E., & Zahn-Waxler, C. (1985). Child-rearing patterns in depressed, abusive, and normal mothers. American Journal of Orthopsychiatry, 55, 237-251.
- Trickett, P. K., & Susman, E. J. (1988). Parental perceptions of child-rearing practices in physically abusive and nonabusive families. Developmental Psychology, 24, 270-276.
- Twentyman, C. T., & Plotkin, R. C. (1982). Unrealistic expectations of parents who maltreat their children: An educational deficit that pertains to child development. Journal of Clinical Psychology, 38, 497-503.
- Vasta, R. (1982). Physical child abuse: A dual-component analysis. Developmental Review, 2, 125-149.
- Watkins, H. D., & Bradbard, M. R. (1982). Child maltreatment: An overview with suggestions for intervention and research. Family Relations, 31, 323-333.
- Weston, J. T. (1968). The pathology of child abuse. In R. E. Helfer & C. H. Kempe (Eds.), The Battered Child, (pp. 77-100). Chicago: University of Chicago Press.
- Wolfe, D. A. (1985). Child-abusive parents: An empirical review and analysis. Psychological Bulletin, 97, 462-482.

- Wolfe, D. A., & Mosk, M. D. (1983). Behavioral comparisons of children from abusive and distressed families. Journal of Consulting and Clinical Psychology, 51, 702-708.
- Wolfe, D. A., Sandler, J., & Kaufman, K. (1981). A competency-based parent training program for child abusers. Journal of Consulting and Clinical Psychology, 49, 633-640.
- Wolfe, D. A., Fairbank, J. A., Kelly, J. A., & Bradlyn, A. S. (1983). Child abusive parents' physiological responses to stressful and nonstressful behavior in children. Behavioral Assessment, 5, 363-371.
- Wolfe, D. A., St. Lawrence, J. S., Graves, K., Brehony, K., Bradlyn, A. S., & Kelly, J. A. (1982). Intensive behavioral parent training for a child abusive mother. Behavior Therapy, 13, 438-451.
- Zachary, R. A. (1986). Shipley Institute of Living Manual. Los Angeles: Western Psychological Services.
- Zillman, D. (1979). Hostility and aggression. Hillsdale, NJ: Erlbaum Press.

APPENDIXES

APPENDIX A
DEMOGRAPHIC QUESTIONNAIRE

Demographic Questionnaire

Please answer the following questions.

1. Is your household a single-parent or two-parent household? Check the answer which applies.

_____ single parent
 _____ two parent

2. How old is the child being seen with you today?
 _____ age of child.

3. How many children do you have? _____

4. How many children reside in your household? _____

5. How long have you lived at your present address?

6. Please describe your occupation. _____

Please describe your spouse's occupation. _____

7. Please mark the total income range for your family.

_____ 0-\$10,000
 _____ \$10,001-\$15,000
 _____ \$15,001-\$20,000
 _____ \$20,001-\$25,000
 _____ \$25,001-\$30,000
 _____ more than \$30,000

8. How many years of education have you and/or your spouse completed? (Check the highest level.)

Self Spouse

_____	_____	grade school
_____	_____	some high school
_____	_____	high school degree or GED
_____	_____	technical training
_____	_____	some college (note years)
_____	_____	B.A. or B.S. degree

9. Have you had any formal training regarding raising children (for example, courses in child development, parent education classes)?

_____ yes (specify) _____
 _____ no _____

APPENDIX B
CONSENT FORM

CONSENT FORM

We are in the process of conducting a study on how parents solve problems between other people, including their children. We are asking for your assistance in this project. We believe that this information can then be used to help us know how to better teach parents to solve problems they have with their children.

Your participation in this study will take approximately one hour. You will first be asked to fill our two questionnaires. Then you will be presented with several parent-child problems to solve.

The information obtained will be kept in strict confidence. At no time will your identity be revealed. Questionnaires will be identified by number only, and the final analysis of the data will focus on participants as members of a larger group.

If you would like a copy of the final results of this study, please give your name and address to the person administering the questionnaires. A copy of the results will be mailed to you upon completion of the study.

Thank you for your consideration.

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Please note: Ms. Everett can be reached at:
(901) 528-5489

I have been given and read a copy of the introduction for the study on parent-child problem-solving. I hereby voluntarily consent to participation in this study. I understand that I can also withdraw from participation at any time I wish.

Parent's signature

Date

Signature of Principal Investigator _____

APPENDIX C
SUMMARY DATA ON DEMOGRAPHICS AND
DEPENDENT VARIABLES BY GROUP

SUMMARY DATA BY GROUP (N = 16)

<u>Demographics</u>	<u>Abusive Mothers</u>	<u>Nonabusive Mother of Physically Abused Child</u>	<u>Nonabusive Mother of Nonabused Child</u>			
Number of single parents	13	11	10			
Average number of children	3.31	3.50	2.56			
S.D.	1.14	1.79	0.89			
Amount of parenting education sessions						
None	8	7	12			
Limited	6	5	0			
More than 3 sessions or formal courses	2	4	4			
Frequency of STRATA						
1	10	8	1			
2	6	6	1			
3	0	2	6			
4	0	0	8			
	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>
Hollingshead Four Factor Score	17.81	5.75	21.19	6.2	38.56	8.9
Shipley WAIS-R Intellectual Equivalency						
Dependent measures	77.56	6.98	87.31	9.67	97.00	13.3
PSI confidence	26.81	8.58	23.00	7.21	20.88	8.58
PSI approach/avoidance	43.94	9.34	39.25	10.36	42.13	4.84
PSI control	19.06	7.60	17.25	5.69	15.94	5.86
PSI total	89.81	20.79	80.75	20.28	77.69	20.07
PSOC S/K	19.13	6.18	19.56	5.53	20.44	8.93
PSOC V/C	30.81	10.55	36.50	7.91	42.00	6.69
MEPS Total	13.81	6.73	17.44	4.62	21.94	7.72

VITA

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Doctor of Philosophy

Thesis: INTERPERSONAL PROBLEM-SOLVING ABILITIES OF
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