

**A Behavioral and Educational Treatment to Improve Adolescent
Mothers Supervision and Home Safety Practices
With Their Young Children**

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(ABSTRACT)

Injury is the leading cause of death and disability among American children, and most injuries to children aged 1-5 years occur at home. Factors associated with increased risk for unintentional injury to young children include an overcrowded home environment, low SES, and living with a mother who is young, less educated, more emotionally overwhelmed, and less protective in her supervision, attributes characteristic of many adolescent mothers. Previous research suggests that teaching parents basic child behavior management techniques can reduce child dangerous behavior (Mathews, et al., 1987; Powers & Chapieski, 1986), but these interventions have not addressed the lack of knowledge about child development common among adolescent parents.

The current study employed a multiple-baseline design across subjects to assess the impact of a 6-week in home educational and behavioral treatment. Observable home hazards, supervisory skill, maternal efficacy, parenting stress, and cognitive readiness to parent were examined in four adolescent mothers (aged 16-19), in addition to the dangerous behavior of their children (aged 16-24 months). Mothers received education about child development and sensitive parenting, as

well as training in home safety and child behavior management. Child dangerous behavior and maternal supervisory skill and positive behavior were assessed in weekly 20-minute videotaped mother-child interactions. Pre- and post- measures of parenting stress, cognitive readiness to parent, and maternal efficacy related to parenting and child safety were assessed by self-reports. Treatment resulted in improvements in mother positive behavior and knowledge of child development and in reductions of parenting stress, observable home hazards, and child dangerous behavior. A 2-month follow-up revealed some minimal maintenance of treatment gains suggesting additional booster sessions are needed for longer-term gains of reduced injury risk.

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INTRODUCTION

Overview of Childhood Unintentional Injuries

According to the latest National Survey of mortality data in the United States more than 20,000 children aged 0 to 19 died of injuries (NCHS, 1993). The leading cause of death and disability among children between the ages of 1 and 4 in the US is injuries, and infants and toddlers (age 1 to 4 years old) are rated as having the second highest number of deaths due to injuries second only to adolescents (NCHS, 1993). Young children as a group are particularly vulnerable to injuries because of their motivation to explore their environment before they are fully capable of protecting themselves from environmental hazards (Greaves, 1993). Among preschoolers fatal injuries are linked most frequently with motor-vehicle occupancy collisions, drowning, fires and burns, and suffocation (NCHS, 1990). However, even non-fatal injuries such as falls, poisoning, and non-flame burns or scalds cause a tremendous amount of pain and suffering, in addition to long-term physical, emotional, and economic consequences for both child and family (McLoughlin & Mcquire, 1990).

Slow progress has been made in controlling unintentional injuries in children, despite the recognition of childhood injuries as the leading cause of childhood morbidity and mortality. There are several reasons for this. First, injury events are dynamic in nature (Valsiner & Lightfoot, 1987). Unlike illnesses, injuries do not present as a set of identifiable symptoms, but rather they manifest as a complex interaction of human and environment transactions (Valsiner, 1985). Second, the word "accident" is often used by the public and the health care profession to describe injury events as random, unpredictable events "resulting from causal sequences that are somehow

intrinsically different from those that lead to disease" (Haddon, Suchman, & Klein, 1964). Recently, researchers studying childhood injury prevention have chosen to view accidents as "unintentional," emphasizing that an injury is not just a(n) (accidental) random, spurious event but a preventable phenomenon (Peterson & Brown, 1994; Rivara, 1982). Third, prevention of unintentional injuries is low in the hierarchy of medical priorities (Gallagher, Messenger, & Guyer, 1987). Reisinger and Bires (1980) have reported that the average pediatrician devotes less than 10 seconds to anticipatory guidance on prevention of injuries. Fourth, the same reasons that make it difficult to know what causes an injury also make it difficult to provide generalized treatment strategies. Finally, unintentional injuries have been widely studied from an epidemiological perspective with little emphasis given to the dynamic process of the injury event that takes into account maternal supervision and characteristics, environmental structures, social support, stress in the household, and child characteristics (Garling & Garling, 1995; Greaves, Glick, Kronenfeld, & Jackson, 1994; Peterson, Farmer, & Mori, 1987; Valsiner & Lightfoot, 1987).

Risk Factors

The majority of unintentional injuries (about 90%), and half of all deaths caused by unintentional injuries to children under 5 years of age, occur in and around the home (Glick, Greaves, Kronenfeld, & Jackson, 1993). There are many risk factors that have been identified for an injurious event, such as the physical and social environment in which the injury events are most likely to occur, and the characteristics of the child and mother that place them at risk (Greaves et al., 1994). Physical environmental risks include poorly structured housing, unsafe play areas, dangerous neighborhoods, accessible poisons and toxic agents, unfenced bodies of water, absence of fire protection devices, and/or ungated stairways (Baker, 1992; Gallagher, Guyer, Kotelchuck,

Bass, Lovejoy, McLouglin, Mehta, & Messenger, 1985; Greaves et al, 1994; Tertinger, Green, & Lutzker, 1984).

However, it seems unlikely that hazardous environments alone can account for why some children are unintentionally hurt more often than others. In light of this many studies have investigated possible social environmental risks for injury (Wadsworth, Burnell, Taylor, & Butler, 1983). Such social environmental risks include low socioeconomic status (Durkin et al., 1994; Matheny, 1986; Nersesian et al., 1985), maternal characteristics such as age, education, and depressive symptomology (Beautrais, Fergusson, & Shannon, 1982; Cummings et al., 1994; McCormick, Shapiro, & Starfield, 1981; Taylor, Wadsworth, Butler, 1983), family stress or instability (Beautrais et al., 1982; Horwitz et al., 1988), single or step-family constellation (Wadsworth et al., 1983), and poor supervisory and/or coping skills on the part of the parent (Garling & Garling, 1993; Garling & Garling, 1995; Glick et al., 1993; Greaves et al., 1994; Matheny, 1986).

Many of the improvements that have been made in preventing injuries have utilized passive strategies, such as legislation and structural measures that do not require a continuous effort on the part of one individual (Finney, Christopherson, Friman, Kalnins, Maddux, Peterson, Roberts, & Wolraich, 1993). Protection against injuries is achieved by a one-time change in the environment (Finney et al., 1993). For example, public safety mandates have been passed to prevent such injuries as poisonings (resulting from easy-to-open packaging) and infant strangulation and/or asphyxiation (poorly designed cribs and refrigerators) (Peterson & Brown, 1994). However, many situations that affect preschool children can only be avoided by the behavior of the parents (Garling & Garling, 1995; Peterson et al., 1987; Greaves, 1994; Valsiner

& Lightfoot, 1987; Wortel, Geus, Kok, & Woerkum, 1994). For example, legislation will not stop a child from reaching up to pull down a pot of boiling water on him or herself or having a child drown in the bathtub because s/he was not supervised.

The bulk of the literature on injuries has been dedicated to identifying high risk populations, times of day, developmental periods, and occupations, but only until recently have researchers attempted to complement this literature by studying injuries as a series of person-environment interactions (Peterson et al., 1987). Garling (1985) has suggested an examination of the behavioral components of the interaction between an individual, the environment, and other people is useful in understanding how an injurious event is likely to occur. Garling (1985) states, "The occurrence of accidents, or near accidents, may be seen as indicating a dysfunction of the human being and the environment system" (p. 8). Only by examining this system as a whole will the dysfunction be more clearly identified. Part of the inability of interventionists to reduce injury rates has been due to their reliance on a singular approach to solving the problem.

Epidemiologists have overly focused on the "agent" causing the injury, and behavioral psychologists have been consumed by identifying the accident-prone child or unsafe behavior. A more useful approach would be to focus on the behavioral interactions of individuals within the environment and recognize that no single cause is likely to be responsible for unintentional injuries (Garling, 1985).

A specific high-risk population that provides a unique opportunity to study the dynamic properties of an injury event associated with preschool childhood injuries is adolescent mothers and their children. Interestingly, for an adolescent mother many risk factors implicated as determinants of an injury in a child are also characteristics of the sequelae associated with her life

situation (McAnarney & Hendee, 1989; Musick, 1993; Taylor et al., 1983). Adolescent parenting provides a unique challenge to injury preventionists because there are many problem areas that need to be addressed from deficits in parental knowledge about their child's developmental capabilities to poor parental supervision. Moreover, adolescent mothers are often burdened with difficult financial situations, minimal social support, and hazardous housing situations.

Characteristics of Adolescent Parenting

Historically speaking teenage pregnancies have been a common occurrence. However, only until the last half of the century has this particular social phenomenon become a heated topic in moral, political and social debates within the United States (Brooks-Gunn & Chase-Landsdale, 1995). Each year about a half million American teenagers become new mothers (Alan Guttmacher Institute, 1994). Nationally, 18% of all firstborn children are born to teenage mothers (Flanagan, McGrath, Meyer, & Garcia-Coll, 1995). Of the girls who choose to carry their children to term, the majority are not married (66 percent in 1987) (Furstenberg, 1991; National Center for Health Statistics, 1988). Today, teenage parenthood is almost always associated with poverty, living alone, and poor childhood outcomes. Teenage mothers are disproportionately represented on welfare roles and as high school dropouts (Brooks-Gunn & Chase-Landsdale, 1995). Furstenberg (1976) discovered that more than 50% of teen mothers involved in his longitudinal study had not graduated from high school five years following the birth of their first child. However, it was observed in a 12-year follow-up that about 30% of the women were able to finish their high school education. In another study comparing adolescent mothers to their non-pregnant peers, it was found that just about half the teen mothers completed their high school education compared with 97% of their nonpregnant peers (Card & Wise, 1978).

Although there are many pitfalls for teenage mothers, some are able to negotiate their new responsibilities and roles well. However, as a group they and their children are at substantial health and behavioral risks (Furstenberg, Brooks-Gunn, & Morgan, 1987). Typically teenager mothers do not have educational or job skills making it difficult to be financially independent. Consequently, many teenage mothers turn to their families for help, shelter, and child care (Brooks-Gunn & Chase-Landsdale, 1995).

Studies of adolescent parenting behavior reveal a wide variation in young mothers' quality of parenting. Yet, certain characteristics are more prevalent among adolescent mothers as a group. Adolescent mothers have been characterized as being less aware of children's developmental milestones. They are less verbal in their interactions and are said to have a more negative parenting style, characterized by "prodding, pinching, and poking" than that of adult mothers (Brooks-Gunn & Chase-Landsdale, 1995). What researchers have labeled as "sensitive parenting" may be lacking in the majority of interactions between adolescent mothers and their children. An adolescent mother is also more likely to experience stress due to her greater likelihood of being single and poor with little education and few resources to provide for her child. Moreover, she is likely to experience additional stress due to her own psychological adjustment and developmental history and is less likely to receive the support needed to buffer herself and her child from the adverse stimuli of her situation. Finally, when support is given in such a way that it infringes on the mother's attempts to be autonomous, she is likely to become resentful and to feel incompetent in her role as mother. A number of the characteristics just described will have a direct bearing on an adolescent mother's ability to supervise and protect her child from potentially dangerous situations.

Cognitive Readiness to Parent Factors

The current parenting literature recognizes that there are characteristics and behaviors that lead to successful parenting (Belsky, 1984; Whitman, Borowski, Schellenbach, & Nath, 1987). In particular Whitman et al. (1987) has formulated the notion of cognitive readiness to parent, which emphasizes three distinct components that are believed to contribute to optimal outcomes. These three components are: a) possess positive attitudes towards being a parent, b) know how a child develops, c) understand what constitutes sensitive parenting (Sommer, Whitman, Borkowski, & Schellenbach, 1993). Using this framework to examine adolescent mothers, Sommer et al. (1993) noted that these young women are at a distinct disadvantage to parent. A comprehensive study was conducted using three indicators of cognitive readiness to parent (i.e., developmental knowledge, parenting style, and parenting attitudes) to compare across groups of pregnant adolescents, non-pregnant adolescents, and adults (Sommer et al., 1993). A multiple regression was conducted using the cognitive readiness to parent measures to predict parenting stress and maternal-child interactional style. Results of their study indicated that adolescents were less cognitively prepared, experienced more stress in their parenting role, and were less adaptive in their parenting style than adult mothers. Overall, cognitive readiness to parent factors successfully predicted parenting stress even after controlling for specific demographic variables. However, demographic variables mediated the effects of cognitive readiness to parent on mother-child interactions. Given the transactional relationship of the environment in which childhood injuries occur, it is important to examine a mother's knowledge of childhood development, parenting attitudes, and style and how they impact child safety.

Maternal Efficacy

For an adolescent mother to cope successfully with the many stressors associated with parenting and provide a sensitive and nurturing environment for her child, she needs to have a high degree of maternal self-efficacy about her role. The theoretical framework of Bandura (1989) in regards to self-efficacy identifies the importance of this construct in understanding the relationship between knowledge and behavior. The construct of self-efficacy highlights the fact that knowledge is not the sole factor in driving behavior. A mother's self-efficacy can be influenced by a number of different factors such as prior parenting experience, available role models, personal self-esteem, social support, and financial security. Previous studies have examined adolescent mother's self-esteem broadly without specifically targeting confidence in performing typical mother care activities (i.e., feeding, changing, and bathing a baby). The practice of using broad measures of self-esteem for adolescent mothers has lead to mixed results. Some studies have indicated that adolescent mothers experience low levels of self-esteem and ego development (Kurtz & Derevensky, 1994; McLaughlin & Micklin, 1983). However, a study by Crase and Dale (1989) found that adolescent mothers during the early stages of parenting had significantly higher self-esteem than a non-pregnant/non-parenting control group.

Teti and Gelfand (1991) developed a measure of maternal self-efficacy that is highly situation specific to mother care activities. Their study examines the relationship between self-reported maternal self-efficacy and mother behavioral competence. They found that maternal self-efficacy mediates the effects on parenting behavior even after controlling for family demographics, social support, and level of mother depression. Suggesting that these variables are not as important as self-efficacy in determining parental competence. Additionally, East, Mathews, &

Felice (1994) found those adolescent mothers who exhibited low confidence about their parenting ability were more likely to value physical punishment, have high expectations regarding their children's nurturing role, and low empathy for their children's needs.

Maternal Supervision

Essential to understanding what makes poor, single, teen mothers more susceptible to higher rates of unintentional injuries and abuse in their children is the role of the caregivers' interactions with the child in his or her environment. Valsiner and Lightfoot (1987) highlight the role of the caregiver in guiding the child and shaping his or her environment in the socioecological approach to preventing injuries. This approach is based on the view that a child's development is the product of transactions between the child and environment under the conditions of a caregiver's purposeful actions to guide his or her development (Valsiner & Lightfoot, 1987). Caregivers not only supervise their child's safety, but they also impart valuable knowledge about how to identify a danger, and how to act when the danger is present (Garling, 1985). Children do not simply learn about the dangers inherent in the environment by "trial-and-error," or even through observational learning. According to Garling (1985) children are surrounded by "social others," parents, grandparents, teachers, peers, and siblings, who constantly intervene in the child's relationship with the environment. Ideally, a balance must be achieved between supervising the child, teaching a child about accident prevention, and acting in a way as to promote a child's psychological growth (Valsiner, 1985).

Several studies have been conducted that support the notion that specific child rearing patterns are important contributors to levels of household risk (Glick et al., 1993; Matheny, 1986). Matheny (1986) found that high injury liability was signified by mothers, who were young,

less educated, depicted themselves as more emotionally overwhelmed, and less energetic. Moreover, the homes tended to be less optimal for child development (e.g., fewer stimulating toys), of lower socio-economic status (SES) and marked by higher levels of noise and disorder. Similarly, low SES and a less protective maternal supervisory style had higher risk environments (Glick et al., 1993). Cataldo, Finney, Richman, Riley, Hook, Brophy, & Nau (1992) suggest that children who are injured more frequently are more likely to approach and make contact with hazards and their parents may be less effective in supervising and teaching safe behaviors. Parents who are young, less educated and more emotionally overwhelmed may be less effective in dealing with the variety of demands of raising a child and therefore provide poor supervision to that child (Cataldo et al., 1992).

Effective parental monitoring requires identification of potential dangers to the child and accurately matching what the child is developmentally capable of doing, with more or less supervision provided based on their general knowledge of the child (Valsiner, 1985; Valsiner & Lightfoot, 1987). General knowledge of the child is based on "personally constructed" (i.e., past experience of the child in a particular situation) and "culturally constructed" knowledge (i.e., derived from expectations of children at certain ages within a particular culture) (Valsiner & Lightfoot, 1987). A caregiver is confronted with the dual tasks of promoting a child's development by allowing him or her to explore and experience the environment, and of protecting and preventing a child from engaging in potentially dangerous behavior that is beyond the child's current developmental level (Valsiner, 1985). Consequently, in order for a caregiver to be a successful preventer of injuries, he or she must be an active observer of the child's behavior and capabilities and an efficient, accurate anticipator and problem solver in emergency situations.

Therefore, the caregiver's success in preventing injuries will be contingent on her knowledge of the child, the caregiver's own cognitive developmental capabilities, and her motivation to be an active participant in her child's development (Holden, 1985; Valsiner, 1987). In a study by Gralinski and Kopp (1993) it was found that parents of infants and toddlers made decisions about forbidding versus allowing responses in their child based on their beliefs about safety and their understanding of their child's current abilities. Moreover, it was discovered that the primary form of injury prevention for infants and toddlers is the use of physical barriers, hazard removal, and vigilant supervision on the part of the parents (Garling & Garling, 1995; Gralinski & Kopp, 1993).

In a study by Garling and Garling (1993) it was found that mothers perceived less risk to their children when conditions allowed for greater amount of supervision. Mothers' also perceived less risk to their children if the child assisted the mother with work around the house rather than playing alone. Moreover, the perceived risk was further reduced if the mother actually played with her child compared with having the child assist the mother in some household duty. In another study by Gofin (1993), a mother's unsafe behavior was examined with their infants and toddlers. The results of the study indicate that as the child gets older mothers' are more likely to engage in "unsafe behaviors." Part of the reason for this unsafe behavior could be that parents only anticipate injuries when they can perceive how an injury-causing agent could possibly hurt their child (Garling & Garling, 1995). It could also be that as the child gets older a mother might overestimate his/her developmental ability to effectively negotiate hazardous situations (Garling & Garling, 1995).

Children of adolescent mothers are at risk because the mothers lack some essential skills that are necessary to be effective anticipators and supervisors of their children. As

was stated earlier, adolescent mothers are characteristically known to have less knowledge of their child's developmental milestones, less social support to help them with their child, are more likely to be distracted with other psychosocial stressors (identity formation, self-efficacy, transition into mother hood), and are also likely to be living in a household with a greater amount of environmental hazards due to their low SES. Overall, a number of studies have shown that adolescent mothers are at greater risk for injuries in their children both unintentional and intentional and moreover their children are likely to have developmental delays and behavioral problems later in life.

Interventions to Enhance Developmental Knowledge

Traditional methods to enhance an adolescent's ability to parent have been approached from two main strategies. These two strategies are characterized as: (1) education relating to child development and (2) the enrichment of social support systems available to the mother. Fulton, Murphy, and Anderson (1991) conducted an intervention study using 76 adolescent females over a 4-month period whereby they received information concerning developmental knowledge of their child and parenting skills. Pre-and-post-measures were taken of the women's self-esteem, knowledge of child development, and tendencies toward inappropriate actions toward their child. Results revealed significant differences between pre-and-post measures of child development knowledge. Further analysis indicated a significant change in the subject's child abuse potential. A follow-up at 10 months with two public agencies did not find any evidence that the mothers examined in this study had been reported for abuse.

Olds, Henderson, Chamberlin, & Tatelbaum (1986) examined a high risk group of young, poor, unmarried mothers in a randomized clinical trial of home-health nurse visitations to assess

the benefits of social support on child morbidity outcomes. The intervention groups consisted of nurse visitations once a week for the first six weeks after delivery and then on a diminishing frequency, so that, by the 24th month of the child's life, they had visited once every six weeks. During their intervention the nurses attempted to provide developmental information about the child. The nurses also taught parents about management of health and behavioral problems, promoted maternal life course development (planning for the future pregnancies, continuing their education, finding work and a career, etc.), involved other family members and friends in the pregnancy, birth, and early child care, and linked mothers with other needed health and human services. During the second year of life children of all nurse-visited women, regardless of the family's risk status, were seen in the emergency rooms fewer times and were seen by their physicians less frequently for accidents and poisonings than comparison group children. Moreover, the treatment group had more stimulating toys in the home and exhibited less restrictive and punitive behavior toward the child. Finally, nurse-visited young, poor, unmarried mothers showed an 82% increase in the number of months they were employed and 43% fewer subsequent pregnancies during the four years after the delivery of the first child.

After conducting a review of the home visit literature, Olds and Kitzman (1990) concluded those programs with the greatest chances of success have the following three characteristics: (a) They are based on a socioecological model that accepts that maternal and child health are determined by a system of social, behavioral and psychological factors rather than a single influence; (b) The programs are designed to address family life during pregnancy and the early child rearing years with nurse home visitors who establish a therapeutic relationship and visit frequently to address the system of factors that influence maternal and child outcomes; and (c)

They target families at greater risk for maternal and child health problems by virtue of the poverty, age and lack of personal and social resources.

Home Safety Interventions for Young Children

There have been several studies that have been conducted in order to reduce infant and toddler injuries in the home. Powers and Chapieski (1986) reported that repeated maternal interventions (i.e., child removal) of their 14-month-old infants from unsafe objects resulted in keeping the infant away from dangerous objects 84% of the time. Another study that attempted to reduce injuries in children of high risk families taught caregivers home safety skills so that they could decrease the number of observable hazards in their home (Tertinger et al., 1984). In this study the researchers developed the Home Accident Prevention Inventory (HAPI) in order to determine a baseline of observable hazards in the family's home. After the hazards were identified families were presented with instructions and demonstrations on how to make hazards in their home inaccessible to their children. Each treatment package was tailored specifically to the types of hazards found in the family's home. The home safety information was presented first to the least problematic area of hazards, so that the family could experience some success before proceeding to the more problematic areas. Overall, the intervention was found to reduce the number of accessible hazards. Similarly, the accessible hazards remained reduced after unannounced follow-up home visits.

Finally, Mathews et al. (1987) developed an intervention to decrease infant risky behavior in a single case multiple baseline design across subjects. The sample consisted of three married, adolescent mothers who received high levels of support from their families and one married, adult mother. Mothers were taught to increase their positive interactions with their infants, child-proof

their homes, to use playpen time-out for potentially dangerous behaviors, and to give positive attention for safe behavior. It was discovered that infant risky behavior, observed during 10-minutes of freeplay, decreased from variable and at times high rates during baseline to stable near zero rates after treatment.

Although these studies revealed some efficacy in decreasing different aspects of the injury causing event for the child they do not fully address the deficits that a poor, unsupported, single adolescent mother may experience. Moreover, in Mathews et al. (1987) the adolescent mothers' used in their study were older adolescents, all three were married, and had family support, reducing their chances of having difficulties in parenting their children. Therefore, it could be expected that adolescent mothers who are single, young in age (15-18) and have less family support might need a more comprehensive behavioral treatment alternative that includes education about normative child development and how the child's developmental capabilities affect home safety practices and parental supervision.

Single Case Designs

A multiple baseline across and within subjects design was used to assess the effectiveness of a treatment package designed to decrease infant dangerous behavior and increase mother's supervisory skills. This design provided an intensive assessment of parent and child behaviors across time and provided an opportunity to determine whether intervention effects generalize across parent knowledge and supervision. By using a subject's own baseline as comparison, a better understanding can be gained about the relationship between a mother's knowledge of her child and the child and mother's subsequent behavior when confronted with a dangerous environment. Moreover, single case designs are more flexible in that they allow for adjustments to

be made to the treatment strategies based on the subjects own behavior. This is particularly important for attempting to isolate effective strategies in an area of study where researchers have attempted numerous interventions with a variety of indirect or negligible outcomes (Peterson & Brown, 1994). It is also important to examine the generalizability of what the mother learns during treatment and how much she applies to later developmental changes (at follow-up).

Rationale for Current Study

In summary, injury is the leading cause of death and disability among American children, and most injuries to children aged 1-5 years occur at home. Factors associated with increased risk for unintentional injury to young children include an overcrowded home environment, low SES, and living with a mother who is young, less educated, more emotionally overwhelmed, and less protective in her supervision, attributes characteristic of many adolescent mothers. Previous research suggests that teaching parents basic child behavior management techniques can reduce child dangerous behavior (Mathews, Friman, Barone, Ross, & Chrsitopherson, 1987; Powers & Chapieski, 1986), but these interventions have not addressed the lack of knowledge about child development common among adolescent parents. Because home based behavioral methods have demonstrated some efficacy in reducing dangerous situations for children the current study was designed to evaluate the effects of normal child development education, home hazard education and prevention, and parent behavioral training. Past studies have shown some success with teaching basic parent behavioral techniques and home hazard education (Mathews et al., 1987; Powers & Chapieski, 1986; Tertinger et al., 1984); however, none has attempted to address the added deficits that are commonly found in adolescent parents (e.g., poor knowledge of developmental milestones in children). By combining developmental education about their child

along with developmentally relevant safety information and parent behavioral training, maternal supervisory skills were hypothesized to increase and dangerous child behavior to decrease as a result of the supervisory skills.

Due to difficulties with the potency of the original treatment package and the premature departure of several graduate student therapists, a second treatment intervention was conducted with a new set of subjects (i.e., Study 2). The methods, results, and discussion for Study 1 can be found in Appendix A.

Study 2

Hypotheses

1. Recommendations for improving observable hazards in the home along with developmentally relevant safety information will result in an increase in mother supervisory skills and a decrease in child dangerous behavior during a 20-minute videotaped interaction.
2. Positive parenting training will result in a significant increase in mother positive behavior (i.e., praise, narration of the child playing) and maternal supervision.
3. Time-out for dangerous and/or disruptive behavior will result in a further reduction of child dangerous and disruptive behavior.
4. In addition, recommendations to improve the observable hazards in the home will produce a reduction in the number of observable hazards as identified from the HAPI post-treatment.
5. After the mother has completed the final treatment session her self-reported stress (from the Parenting Stress Index) will be reduced and her maternal self-efficacy will increase from baseline levels. Similarly, the three cognitive readiness measures to parent (knowledge of child development, parent attitudes and style) will show improvement from baseline.

6. Child dangerous behavior is expected to remain low, while maternal supervisory skills and mother positive behavior will remain high and stable at a two-month follow-up.

METHOD

Subjects

Four first-time adolescent mothers between the ages of 16-19 years old ($M = 17.5$) were recruited for this treatment study. There were four children in the study (two males, two females) whose ages ranged from 16-24 mos. ($M = 19.5$ mos.). Two of the mothers were Caucasian and two were African American. All four of the children were walking at the time of the study. Subjects were provided with various gifts related to caring for a toddler (e.g., diapers, toys, coupons for baby food, etc.) as compensation for their participation. In addition, several home safety items (i.e., fire extinguisher, cabinet safety locks, fire alarms, batteries for fire alarms, etc.) were provided to improve home safety. Three of the mothers were recruited from an adolescent school for mothers (Paquin School for Adolescent Mothers) in Baltimore, Maryland, and one mother was recruited from a similar school in Roanoke, Virginia.

Design and Procedure

All observations and interventions were conducted weekly in the mother's home. All data collection was conducted by the primary investigator. Each videotape collected was marked with a code number and given to trained observers to code occurrences or non-occurrences of target behaviors related to child safety and parental supervision.

A multiple baseline design across subjects was used for this study (Barlow & Hersen, 1984). Following an initial baseline of a minimum of two weeks, a series of four interventions were implemented sequentially across time to evaluate their effectiveness to several target

behaviors. Target behaviors included: child dangerous behavior (operational definitions see Appendix B), mother positive behavior (operational definitions, See Appendix C), and mother supervisory skills (operational definitions, see Appendix C). In addition, pre- and post- measures of observable common home hazards (e.g., matches accessible to child, plastic bags within reach of child, access to sharp objects, etc.), and self-report measures of maternal self-efficacy, parenting stress, cognitive readiness to parent, and knowledge of home safety were administered. A follow-up visit was conducted 2-3 months after the end of treatment

Baseline

During baseline, direct observations of child dangerous behavior, maternal positive behavior, and maternal supervisory skill were made at least once a week for 2-5 weeks. The length of the baseline varied from subject to subject for a multiple baseline design across subjects. Subject 5 had a 2-week baseline, Subject 6 a 3-week baseline, Subject 7 a 4-week baseline, and Subject 8 had a 5-week baseline (see Table 1). Each subject had no less than four 20-minute baseline sessions.

The baseline period included a weekly 20-minute video sampling of child and mother behaviors under two different conditions. The *mother distracted* condition included a 10-minute videotaped interaction where the mother was distracted with a task while the child freely played on his or her own. For example, the mother was told to let her child play for 10-minutes while she was engaged in a standardized activity (e.g., reading a magazine or book). However, the mother was also told that she should monitor her child and intervene whenever appropriate. The *mother/child play* condition included another 10-minute videotaped interaction where the mother and child played together. The mother was asked to play with her child like she normally would while

still intervening when she believed it was necessary. This condition provided a format by which a comparison could be made between the number of child dangerous behaviors in a direct supervisory situation versus that in which the child may be less supervised. In addition, a number of other baseline measures were collected such as observable home hazards (see Appendix D), mother's cognitive readiness to parent (see Appendix E, F, and G), maternal self-efficacy (see Appendix H), parenting stress (see Appendix I), and basic demographic information (see Appendix J).

Intervention

The treatment consisted of four sessions that were presented to the mother sequentially during weekly sessions of 2 hours (see Appendix K). The last half-hour of each treatment session was spent videotaping two 10-minute behavior samples (i.e., mother distracted condition and mother/child play condition). For Subject 5 the *giving mands intervention* was repeated before beginning the *time-out intervention* due to the child being sick the day the *giving mands intervention* was introduced. At the beginning of each intervention the investigator would first verbally review the skills being discussed that day. Next the investigator modeled each new behavioral skill that was taught to the mother with the child, and then the mother was given a chance to demonstrate the new skill before the videotaped behavioral sample was collected. A review was conducted before each new treatment intervention of the previous week's learned skills. Post-treatment measures included the HAPI, cognitive readiness to parent measures, maternal efficacy, and PSI. The FSS was used only as tool to identify and educate mothers about their individual safety awareness it was not intended to be a pre-post measure of safety awareness. Post-treatment measures included the HAPI, cognitive readiness to parent, maternal efficacy, and parenting stress inventory. Each treatment was presented to the subjects in the following order

and included the following information:

Home and Child Safety Intervention. To facilitate the mother's education about child safety hazards the FSS (see Appendix L) was used to identify specific areas of safety deficits. Education was then provided to them based on "at risk" responses from the survey so that she could adapt her level of supervision to match her child's developmental skill and the dangers encountered in the environment. Additional home safety recommendations were derived from the HAPI and reviewed with the mother. The primary investigator assisted the mother in child-proofing her home based on problem areas identified from the HAPI.

Positive Parenting Intervention. This intervention included information about positive praise and verbal description of a child's activity. "Catching the child being good" and "tailgating" (i.e., narrating what the child is doing as he or she plays) were used as a way to establish a positive relationship between mother and child. The mother was encouraged to observe her child at play so that she would have opportunities to praise her child while engaged in an appropriate activity.

Giving Mands Intervention. This intervention consisted of teaching the mother to give effective commands to a child in a firm and loving manner. The mother was discouraged from giving multiple commands (i.e., "Bring your shoes over here and don't make a lot of noise.") or single word commands (i.e., "Janet!", "No!", "Wait!" "Stop!", etc.) The mother was encouraged to rephrase all commands into something the child could do instead of something that they are being told not to do (e.g., Say, "Come sit on the chair like me." Instead of, "Don't sit on the floor."). The mother was also given the opportunity to practice her new command-giving ability while receiving feedback about her performance from the primary investigator.

Time-out Intervention. The final intervention provided information and practice with implementing a brief time-out for child dangerous behavior and uncontrollable disruptive behavior. The mother was taught to place her child briefly (about a minute) in a playpen when the child engaged in a dangerous or disruptive behavior. The mother was taught to repeat the time-out if the child persisted in going back to a dangerous object or area.

Follow-up (approx 2-mos.)

Follow-up was conducted for all of the subjects in Study 2 except for Subject 7. At follow-up a videotaped behavior sample of mother and child under a distracted condition and a mother child play condition was collected. Self-report measures or the HAPI were not collected at follow-up.

Dependent Variables

Child dangerous behavior (see Appendix B). Dangerous behavior was defined as any behavior that presents a potential physical hazard to the infant. Some examples of infant dangerous behavior include the following: (a) Approaches within two feet of a dangerous object (e.g., fireplace, open stair well, stove, detergent, glass items); (b) Climbs on various objects higher than waist level on the child; (c) Clings to mother during dangerous activities; (d) Grasps or touches dangerous object(s) (e.g., knives, bats, electrical cords); (e) Grasps small objects in hands or mouth; and (f) Leaves the room where the mother is located.

Maternal supervisory skill (see Appendix C). Supervisory skills were operationally defined as any behavior that the mother engaged in that represented high levels of monitoring or vigilance of her child's behavior or any attempt to prevent her child from coming into contact with a hazard. Supervisory skills represented the frequency of the following target behaviors: (a)

Mother hazard warning, (b) Mother hazard prevention (e.g., physically restricts the child from encountering a dangerous situation and/or removes a potentially hazardous object), (c) Time-out (e.g., Mother provides a time-out to a high chair or playpen when child approaches a dangerous situation), and (d) Mother follows (i.e., follows the child when he or she leaves the room).

Maternal positive behavior (see Appendix C). Positive mother behaviors were defined as any attempt by the mother to give her child positive attention. Mother positive behaviors represented the frequency of the following target behaviors: (a) Praising the child for being good, (b) Describing and narrating positive behaviors that the child is engaged in, and (c) Providing physical affection in the form of a hug or kiss

Home Assessment Prevention Inventory (HAPI) (Tertinger, et al., 1984; see Appendix D). This scale consisted of a checklist of observable indoor hazards. A total frequency score of the hazards was calculated after walking through each mother's home. Checklist items included such things as leaving matches and lighters in accessible places, leaving toys and small objects on the floor, not having windows screened or guarded, or not keeping cleaning supplies out of the reach of children. Items on the checklist were considered dangerous only if they were accessible to a child. Hazards were defined as inaccessible if they were locked using a child-proofing device, had child-resistant closures, or were out of the reach from either the floor level or a second surface onto which the child might climb (Tertinger et al., 1984). A percent change score of total hazards was calculated between the pre and post treatment administration of this measure (Post-treatment total hazards/ Pre-treatment total hazards = (X %) -100 = Percent Change). For example, 15 Post-treatment hazards/25 Pre-treatment hazards = (60%) -100% = -40% (i.e., a 40% decrease in hazards).

Self-Report Measures

Measures of cognitive readiness for parenting. The following three measures are grouped by Sommer et al. (1993) into a construct called cognitive readiness to parent. These three components consist of maternal knowledge of child development, maternal parenting style, and maternal parenting attitudes. However, all three measures have components from the Adult-Adolescent Parenting Inventory (AAPI) developed by Bavolek (1985). Sommer et al. (1993) have revised and added items to various subscales of the original Bavolek (1985) measure, in order to more clearly differentiate three separate components of cognitive readiness.

The first component is *Knowledge of Child Development* (see Appendix E). This was examined by a 40-item measure that consisted of questions such as, "Most babies begin sitting up with some support by (a) 3 months, (b) 6 months, (c) 9 months, (d) 12 months." The questionnaire was developed from a combination of items selected by Sommer et al. (1993) and the AAPI (Bavolek, 1985). The reported internal consistency coefficients for this questionnaire have ranged from .70 to .75, while the test-retest reliabilities have been reported as .49 (Sommer et al., 1993).

The second component is *Parenting Style Questionnaire* (see Appendix F). This measure consists of Emphatic Awareness and the Physical Punishment subscales from the AAPI (Bavolek, 1985). The Emphatic Awareness subscale evaluates parental ability to identify and respond appropriately to a child's needs. Items consist of questions such as, "Parents who pay attention to their children's feelings and moods often spoil their children." The Physical Punishment subscale measures maternal attitudes toward the use of punishment. Items consist of questions such as, "Children are more likely to learn appropriate behavior when they are spanked for misbehaving."

Items on both scales were rated on a 5-point Likert scale ranging from (1) strongly agree to (5) strongly disagree. Internal consistency for the Emphatic Awareness and the Physical Punishment subscales have been shown to range from .75 to .89, while test-retest reliabilities have been shown to be .69 to .89 (Bavolek, 1985; Sommer et al., 1993).

The third component is the *Parenting Attitude Questionnaire* (see Appendix G). This questionnaire was developed to measure specific parental attitudes toward children. Items were included to measure authoritarianism, nurturance, rejection, and independence. In addition, role-reversal expectations were measured through the Role Reversal subscale of the AAPI (Bavolek, 1985). The Role Reversal scale assess the degree to which a parent expected her child to influence and be responsible for her own well being. An example of this type of question would be, "It is wrong for kids to take care of their parents and make them feel better." All items were rated on a 5-point Likert scale. Internal consistency for the parenting attitude questionnaire has been reported as .74 with a test-retest reliability coefficients of .63 (Sommer et al., 1993).

Maternal efficacy questionnaire (Teti & Gelfand, 1991; see Appendix H). The 9-items in this questionnaire address mother's feelings of efficacy in relation to specific, domains of infant care, such as soothing the baby, understanding what baby wants, getting the baby to understand mother's wishes, etc. For example, "When your baby is upset, fussy, or crying, how good are you at soothing him or her?" Answers were given on a 4-point Likert scale from (1) not good at all to (4) very good. Several safety items were added to this questionnaire to provide additional information regarding the mother's confidence to prevent home injuries to her child. Those home safety behaviors that were added include: (a) A mother's confidence to handle an emergency situation with her infant; (b) Her confidence in being able to protect her infant in her

home from accidental injuries; (c) Her ability to provide the resources needed to protect her child; and (d) Her confidence to perform medical emergency techniques when needed. Maternal efficacy was indicated by three raw scores: total raw score, child care activities, and child safety preparedness. Internal reliability for this scale was .86 and concurrent validity was established with the PSI Sense of Competence Scale ($r = -.75, p < .001$).

Parenting Stress Index (PSI) (Abidin, 1983; see Appendix I). The PSI consists of 151 questions designed to measure the relative magnitude of stress in the parent-child system in three domains: the child domain, the parent domain, and the life stress domain. For example, “When I do things for my child, I get the feeling that my efforts are not appreciated very much.” Answers were given on a 5-point Likert scale ranging from (1) strongly agree to (5) strongly disagree. The PSI has been previously used in research studying the relationship of stress and parenting behavior. Total scale alpha and test-retest reliability coefficients are reported as .98 and .96, respectively (Abidin, 1983).

Demographic information (see Appendix J). This questionnaire included basic information regarding age, date of birth of infant and mother, family constellation, SES, education level, and job status.

Framingham Safety Survey (FSS) (Bass & Mehta, 1980; see Appendix L). This survey examines six major areas of accident prevention: general household hazards, poisonings, burns, water hazards, auto hazards, and toy safety. The survey has four different versions based on the child’s age. For this study the preschool (1-4 years) version was used. This survey had a total of 39 questions for Parts 1 and 2. Questions for this survey were derived from a thorough review of the child safety literature in addition to input from child professionals (i.e., pediatricians,

academicians, and nurses). A sample question is “Have you checked the temperature of the hot water in your house (yes/no).” In this case a “no” response would be considered an “at risk response” which would be followed by standardized safety information regarding this topic. No reliability or validity was reported for questionnaire items.

Interobserver Agreement

Two clinical specialists from the Neurobehavioral Unit at Kennedy Krieger Institute with bachelor degrees in psychology were recruited to help code the videotapes of the mother-child interactions. They each had a minimum of 8 hours of training related to the coding system in which they needed to achieve at least 80% agreement with each other for 3 consecutive 10-minute sessions before coding the rest of the tapes. Observers watched videotapes of the mother-child interactions while taking paper and pencil frequency data of operationally defined behaviors (See Appendix B and C) for every 20-second interval. Interobserver agreement was assessed by having two observers, simultaneously but independently, collect the data for a 10-minute video session. Reliability was assessed for Subjects 5, 6, 7, and 8 during 36.8% (14 out of 38 sessions) of baseline sessions and 29.4% (10 out of 34 sessions) of treatment sessions.

Reliability percentages were calculated by dividing the sum of total agreements for occurrences of behavior (across 30 20-s intervals) by the sum of total agreements plus disagreements (across 30 20-s intervals) for each behavior; these fractions were averaged across each mother’s behavior (e.g., mother follows, mother praise, mother time-out, etc.) and child behavior (e.g., disruptive and dangerous behaviors) and multiplied by 100%. Therefore for each 10-minute session in which reliability was calculated, a total reliability was derived for both mother and child behaviors. Mean agreement scores for mother behaviors across all conditions

(i.e., mother distracted and mother child play) and phases (i.e., baseline and treatment) were 96.7% (95.3-98.6%) for Subject 5, 95% (93-96.8%) for Subject 6, 91.6% (95%-98.9%) for Subject 7 and 95.2 (94.3%-96%) for Subject 8. Mean agreement scores for child behaviors across all conditions were 95.1% (92.8%-97.2%) for Subject 5, 93.4% (90%-96.5%) for Subject 6, 96.6% (94.8%-97.6%) for Subject 7, and 93.5% (90.3%-96.7%) for Subject 8.

RESULTS

Subject 5

Videotaped behaviors - Mother distracted condition

Figure 1 depicts the percent interval of child dangerous behavior, child disruptive behavior, mother positive behavior, and mother supervisory skill for all subjects in Study 2 in the mother distracted condition. Means Pre and Post-treatment for all subjects during the mother distracted condition are depicted in Table 2. The top graph depicts data for Subject 5 which reveals that child dangerous and disruptive behavior occurred at low levels ($M = 24\%$ and 3%) during baseline. Similarly, during baseline the mean percent interval for mother supervisory skill and mother positive behavior remained low ($M = 15\%$ and 7.5%).

When the first session of treatment (i.e., home and child safety intervention) was implemented, a decrease in child dangerous behavior initially occurred with the mean eventually stabilizing at 10% . However, child disruptive behavior started out low for the first two sessions of treatment and then significantly increased to over 90% (Note: The child was sick during this session of treatment) before it leveled off to a mean of 22% . After receiving treatment, mother supervisory skill followed the same pattern of responding as in baseline ($M = 9.3\%$). However, mother positive behavior increased significantly to over 70% after receiving the second session of

treatment (i.e., positive parenting intervention). The initial high level of mother positive behavior eventually leveled off to a mean of 46% by the end of treatment. However, mother positive behavior remained consistently higher than baseline levels throughout the entire treatment phase.

Videotaped behaviors-Mother/Child play condition

Figure 1 depicts the percent interval of child dangerous behavior, child disruptive behavior, mother positive behavior, and mother supervisory skill for all subjects in Study 2 in the mother/child play condition. Means Pre and Post-treatment for all subjects during the mother/child play condition are depicted in Table 3. The top graph in Figure 1 is data for Subject 5. The mean percent interval for child dangerous and disruptive behavior occurred at or near zero (M = 2.5% and 0%) during baseline. However, the mean percent interval of mother positive behavior occurred at moderate to high levels (M = 36.7%) while mother supervisory skill remained at zero through baseline.

After receiving five sessions of treatment the mean percent interval of child dangerous behavior and mother supervisory skill stayed at or near zero. Whereas, child disruptive behavior increased slightly to 20% in the third session (Note: The child was sick during this session) of treatment, but eventually dropped to a mean of 4%. Mother positive behavior followed a similar pattern that was revealed in the mother distracted condition; that is mother positive behavior rose to 90% following the positive parent intervention with occurrences eventually leveling off to a mean of 55% by the end of treatment.

Two-month follow-up

Data collected at a two-month follow-up revealed a slight increase in child dangerous

behavior and mother supervisory skill from treatment during the mother distracted condition. However, child dangerous behavior did not completely return to baseline levels. During treatment mother positive behavior evidenced a downward trend which was confirmed by a lower percent interval of mother positive behavior at follow-up. At follow-up it appears that some moderate gains were maintained after two months had passed since treatment. No measure of observable home hazards was conducted at follow-up. However, based on the videotaped behaviors it appears that the majority of the child dangerous behaviors that occurred at follow-up consisted of the child leaving the presence of the mother and not specific dangers that the child physically touched.

Data collected at a two-month follow-up revealed no occurrences of child dangerous behavior in the mother/child play condition. Mother positive behavior occurred within the same range as observed in baseline making it difficult to conclude any short term or long-term gains achieved by the intervention for this condition.

HAPI and FSS

Table 4 reveals the total observable household hazards (60) identified at baseline from the HAPI for Subject 5. The specific categories of hazards identified were 15 suffocation hazards, 25 poison hazards, 18 sharp hazards, and 2 burn hazards. An 88% reduction in total household hazards (7) was achieved for Subject 5 post treatment.

The total safety score (pre-treatment) on the FSS was 82%. The majority of the “at risk” responses were in the household, water, and burn categories. There was no post-treatment administration of this survey.

Maternal efficacy

The total raw score of maternal efficacy for Subject 5 did not change after receiving treatment (see Table 5). Subject 5 rated her maternal efficacy at the highest level achievable by the questionnaire in baseline suggesting a possible ceiling effect.

PSI

Subject 5’s total parenting stress was within a normal range of functioning (214, 40th percentile) at baseline (see Table 6¹) except for two subscales. *Distractibility/hyperactivity* within the child domain was identified to be clinically significant (30, 87th percentile) and *spouse* within the parent domain was clinically significant (25, 94th percentile). Post-treatment scores of the PSI revealed a small decrease in overall parenting stress (194, 24th percentile). After the post-treatment administration of the PSI all subscale scores were in the normal range of functioning.

Cognitive readiness to parent measures

For Subject 5 there was little to no change noted between baseline and treatment measures of parent attitudes, style, and knowledge of child development (see Table 7). This indicates that the intervention had little or no effect on Subject 5’s cognitive readiness to parent.

Subject 6

Videotaped behaviors-Mother distracted condition

The second graph from the top of Figure 1 is the data for Subject 6. Subject 6’s data

¹ Comparison subjects of pregnant adolescents and adults from Sommer et al. (1991) were included at the bottom of the table.

reveal that child dangerous and disruptive behavior occurred at low to moderate levels ($M = 25.3\%$ and 12%) during baseline. However, a large amount of variability occurred for child dangerous behavior with a range of 0% to 57% . On the other hand, mother supervisory skill and mother positive behavior had low to zero occurrence ($M = 2\%$ and 0%).

Little changed after the first session of treatment (i.e., home and child safety intervention) with child dangerous and disruptive behavior remaining at baseline levels, 30% and 20% , respectively. Similarly, after the first session of treatment mother positive behavior remained at zero. However, mother supervisory skill increased to over 30% after remaining at or near zero throughout baseline. After the second session of treatment (i.e., positive parenting) both child dangerous and disruptive behaviors dropped to zero, whereas mother positive behavior increased to over 95% with a mean of 45% for all of treatment. Child dangerous behavior remained at or near zero ($\underline{M} = 8.3\%$) throughout the remainder of the treatment sessions. During the third session of treatment (i.e., teaching mands intervention) child disruptive increased to 60% before leveling off to a mean of 23% for all treatment sessions.

Videotaped behaviors-Mother/Child play condition

The second graph from the top of Figure 2 is the data for Subject 6. The mean percent interval for child dangerous and disruptive behavior occurred at low to moderate levels ($M = 15.8\%$ and 12.5%) during baseline. Similarly, the mean percent interval of mother positive behavior occurred at low to moderate levels ($M = 26\%$) while mother supervisory skill remained at or near zero throughout baseline ($M = .9\%$).

Child dangerous behavior and mother supervisory skill remained low throughout treatment ($\underline{M} = 3.3\%$, $\underline{M} = 2.5\%$). Child disruptive behavior remained variable throughout treatment ($\underline{M} =$

35%) with a high of 60% for the first session of treatment (i.e., child home safety intervention) and a low of 0% for the last session of treatment (i.e., time-out for dangerous and/or disruptive behavior). Mother positive behavior also showed considerable variability ($M = 35.8\%$) with a high of over 95% after receiving treatment session two (i.e., positive parenting intervention) and then dropped to below 30% for the last two sessions of treatment.

Two-month Follow-up

Data collected at a two-month follow-up revealed no increase in child dangerous behavior and no decrease in mother supervisory skill during the mother distracted condition. However, child disruptive behavior increased from the last treatment session to 50%. Percent interval of occurrence for mother positive behavior at follow-up was 27%, which was still above baseline levels and within the same range as treatment levels.

Data collected at a two-month follow-up revealed no occurrences of child dangerous behavior and mother supervisory skill in the mother/child play condition. While mother positive behavior and child disruptive behavior increased at follow-up to 50% and 32%, respectively. Since child dangerous behavior continued to remain low at the two-month follow-up it appeared that some gains were maintained for this subject after receiving the treatment.

HAPI and FSS

Table 4 reveals the total number of observable household hazards (59) identified at baseline from the HAPI for Subject 6. The specific categories of hazards identified were 25 suffocation hazards, 10 poison hazards, 23 sharp hazards and 2 burn hazards. A 68% reduction in total household hazards (19) was achieved for Subject 6 post treatment.

The total safety score (pre-treatment) on the FSS was 71%. The majority of the “at risk”

responses were in the household, water, and burn categories. There was no post-treatment administration of this survey.

Maternal efficacy

The total raw score of maternal efficacy for Subject 6 increased from 48 at baseline to 55 after receiving 4-weeks of treatment (see Table 5). The increase in confidence occurred in both areas of general child care and child safety preparedness.

PSI

Subject 6's total parenting stress was within the clinically significant range (266, 89th percentile) at baseline (see Table 6). Upon closer examination of the subscales, *demandingness* (30, 98th percentile), *reinforces parent* (14, 90th percentile), and *acceptability* (20, 98th percentile) within the child domain were identified to be clinically significant and *isolation* within the parent domain was clinically significant (17, 85th percentile). Post-treatment scores of the PSI revealed an increase in overall parenting stress (280, 94th percentile). Interestingly, post-treatment stress related to subscales in the child domain decreased whereas stress increased for subscales within the parent domain. *Reinforces parent* (12, 85th percentile) and *acceptability* (16, 85th percentile) in the child domain were still clinically significant, but somewhat lower than in baseline. *Isolation* (18, 90th percentile), *attachment* (16, 85th percentile), *health* (20, 97th percentile), *role restriction* (30, 98th percentile), and *spouse* (24, 92th percentile) in the parent domain were all within the clinically significant range.

Cognitive readiness to parent measures

For Subject 6 there was a noticeable increase between baseline and treatment measures for parent attitudes, style, and knowledge of child development (See Table 7). It appears that the

overall treatment promoted improved parent attitudes, style, and knowledge of child development.

Subject 7

Videotaped behaviors-Mother distracted condition

The third graph from the top of Figure 1 depicts the data for Subject 7. Subject 7's data reveal that child dangerous and disruptive behavior occurred at low to moderate levels ($M = 27\%$ and $M = 10\%$) during baseline. Child disruptive behavior started out at zero and increased to over 40%, whereas child dangerous behavior remained variable throughout baseline. Mother supervisory skill and mother positive behavior consistently occurred at low levels during baseline ($M = 6.6\%$ and 6.6%).

After the first session of treatment (i.e., home and child safety intervention), child dangerous behavior dropped slightly to 23% and mother supervisory skill increased to 13.3% with both leveling off to zero by the end of treatment ($M = 6.6\%$ and 3.3%). Child disruptive behavior remained at zero throughout treatment. Mother positive behavior started out at zero and then increased to over 80% before leveling off to a mean of 44% by the end of treatment.

Videotaped behaviors-Mother/Child play condition

The third graph from the top of Figure 2 depicts the data for Subject 7. The mean percent interval for child dangerous and disruptive behavior occurred at low levels ($M = 12.5$ and 0%) during baseline. Similarly, the mean percent interval of mother positive behavior occurred at low to moderate levels ($M = 16.7\%$) while mother supervisory skill remained at zero throughout baseline.

Child dangerous behavior, mother supervisory skill, and child disruptive behavior all

remained at zero throughout treatment. The only significant change during treatment was a significant increase from baseline in mother positive behavior ($M = 63.3\%$). Interestingly, during the mother-child play condition for baseline and treatment, Subject 7 would have her child sit on her lap while she told her a story.

Two-month Follow-up

No follow-up was conducted due to scheduling conflicts and distance from the subject's home. The primary investigator moved out of the area where Subject 7 was originally seen.

HAPI and FSS

Table 4 reveals the total number of observable household hazards (66) identified at baseline from the HAPI for Subject 7. The specific categories of hazards identified were 28 suffocation hazards, 22 poison hazards, 12 sharp hazards and 4 burn hazards. A 56% reduction in total household hazards (total hazards = 29) was achieved for Subject 7 post-treatment.

The total safety score (pre-treatment) on the FSS was 74%. The majority of the "at risk" responses were in the household and burn categories. There was no post-treatment administration of this survey.

Maternal efficacy

The total raw score of maternal efficacy for Subject 7 increased slightly from 50 in baseline to 54 post-treatment (see Table 5). The increase in confidence occurred in both areas of general child care and child safety preparedness.

PSI

Subject 7's total parenting stress was within a normal range of functioning (245, 76th percentile) at baseline (see Table 6). Upon closer examination of the subscales, *demandingness*

(25, 95th percentile), and *distractibility/hyperactivity* (32, 93rd percentile) within the child domain were identified to be clinically significant. Post-treatment scores of the PSI revealed a decrease in overall parenting stress (215, 45th percentile). Interestingly, post treatment stress related to subscales in the child domain decreased to a normal level of functioning.

Cognitive readiness to parent measures

Subject 7 had somewhat conflicting results. There was a positive increase in parenting attitudes and knowledge of child development (see Table 7). However, there was a slight decrease in parenting style indicating a more negative approach to parenting.

Subject 8

Videotaped behaviors-Mother distracted condition

The bottom graph of Figure 1 depicts the data for Subject 8. Subject 8's data reveal that child dangerous and disruptive behavior occurred at moderate to high levels ($M = 46\%$ and 10%) during baseline. However, mother supervisory skill and mother positive behavior remained low and stable during baseline ($M = 4.6\%$ and 2%).

After the first session of treatment (i.e., home and child safety intervention) child dangerous behavior dropped below 20%. However, there was no change from baseline in mother supervisory behavior. Child disruptive behavior stayed at baseline levels throughout treatment even increasing above baseline during the last treatment session ($M = 23\%$). Unlike the other three subjects in Study 2, child dangerous behavior increased to over 45% after receiving the second session of treatment (i.e., positive parenting intervention). However, no change occurred in the level of mother positive behavior (i.e., 13%) which had significantly increased for the other

3 subjects in Study 2. Consequently, additional time was spent in session 3 of treatment reviewing the positive parenting intervention prior to introducing the mother mand intervention. Due to scheduling difficulties and time constraints the mother mand intervention was introduced after about 40-minutes of practice and feedback regarding the previous week's positive parenting intervention. After the additional review of the positive parenting intervention, mother positive behavior increased to 50% and child dangerous behavior decreased to 0% ($\underline{M} = 28.3\%$) and stayed at zero for the remainder of treatment.

Videotaped behaviors-Mother/Child play condition

The bottom graph of Figure 2 shows the data for Subject 8. The mean percent interval for child dangerous and disruptive behavior occurred at variable rates ($M = 28\%$ and 23%) during baseline. Child dangerous behavior ranged from a low of 3% to a high of 58% . Percent interval of mother positive behavior and mother supervisory skill remained low and stable through baseline ($M = 7.5\%$ and $.83\%$).

Child dangerous behavior and mother supervisory skill remained near zero throughout treatment ($\underline{M} = 3.3\%$, $\underline{M} = 2.5\%$). Mother positive behavior increased to over 70% after receiving the positive parenting session in the second week of treatment and remained relatively high for the remainder of the treatment sessions ($\underline{M} = 50\%$).

Two-month follow-up

Data collected at a two-month follow-up revealed a slight increase in child dangerous behavior in the mother distracted condition, but still well below baseline levels. Percent interval of mother positive behavior at follow-up was 40% , which was above baseline levels and within the same range as treatment levels for the mother distracted condition.

Data collected at a two-month follow-up revealed no occurrences of child dangerous behavior, child disruptive behaviors, and mother supervisory skill during the mother/child play condition. The percent interval of mother positive behavior decreased slightly from treatment levels but stayed well above baseline levels indicating the efficacy of treatment.

HAPI and FSS

Table 4 reveals the total number of observable household hazards (31) identified at baseline from the HAPI for Subject 8. The specific categories of hazards identified were 19 suffocation hazards, 12 poison hazards, 0 sharp hazards and 0 burn hazards. A 71% reduction in total household hazards (total hazards = 9) was achieved for Subject 8 post treatment.

The total safety score (pre-treatment) on the FSS was 97%. The only “at risk” response was having electrical appliances in the bathroom. There was no post-treatment administration of this survey.

Maternal efficacy

The total raw score of maternal efficacy for Subject 8 increased from 53 to post-56 treatment (see Table 5). The increase in confidence occurred in both areas of general child care and child safety preparedness.

PSI

Subject 8’s total parenting stress was within a normal range of functioning (239, 76th percentile) at baseline (see Table 6). Post-treatment scores of the PSI revealed an increase in overall parenting stress (247, 77th percentile) but this score was not within the clinically significant range. However, within the child domain the *adaptability* subscale and within the parent domain the *spouse* subscale were both clinically significant.

Cognitive readiness to parent measures

Subject 8 exhibited an increase between baseline and treatment measures of parent attitudes, style, and knowledge of child development (see Table 7). This indicates that the treatment had a positive impact in these three areas.

DISCUSSION

The purpose of this study was to assess the effectiveness of an intervention package designed to teach adolescent mothers how to reduce dangerous behavior in their young children. The treatment for Study 2 was divided into four sessions which included child proofing the home (Session 1), positive parenting (Session 2), concise command giving (Session 3), and time-out (Session 4). There were two conditions under which the mother and child were observed: a mother distracted condition and a mother/child play condition.

The results showed that among the videotaped behaviors, child dangerous behavior was reduced on average across all four subjects post-treatment for the mother distracted condition. In the second condition where mothers were encouraged to actively play with their children, child dangerous behavior remained low in baseline and decreased to zero following treatment. During the mother distracted condition, child disruptive behaviors were variable in both baseline and treatment for all subjects, but one. However, in the mother/child play condition, disruptive behaviors were negligible except for one subject, for whom there were variable levels in both baseline and treatment.

A significant increase in mother positive behaviors was also observed in the mother distracted and mother/child play conditions following the intervention that reviewed positive parenting skills. In the mother distracted condition mother supervisory skill initially increased after

receiving the child proofing the home intervention for two of the four subjects and eventually dropped to zero for all four subjects by the end of treatment. Mother supervisory skill remained low in both baseline and treatment during the mother/child play condition. Averaged across all four subjects observable hazards in the home were reduced by 71% from an average of 54 hazards in baseline to 16 post-treatment.

The results of the self-report measures showed that maternal self-efficacy on average across all four subjects increased slightly at post-treatment, whereas parenting stress decreased slightly. Of the four mothers only one experienced clinically significant levels of stress in baseline which further increased post-treatment. The three categories of the cognitive readiness to parent measures showed an average increase across all four subjects in parent attitudes and knowledge of child development, whereas no change was reported in parenting style.

A 2-month follow-up revealed in the mother distracted condition no occurrences of child dangerous behavior for one subject and a slight increase in child dangerous behavior for two subjects (follow-up was unable to be completed for one of the subjects). Follow-up observations in the mother/child play condition revealed no child dangerous behavior for the three subjects who had follow-up data. Child disruptive behavior at follow-up remained at baseline levels for two of the three subjects in the mother distracted condition, whereas in the mother/child play condition only one subject exhibited baseline levels of disruptive behavior. Mother positive behaviors remained above baseline levels at follow-up for all three mothers but were lower than the initial post-treatment levels in the mother distracted and mother/child play conditions. Mother supervisory skill remained at or below baseline levels for both conditions. While some gains were maintained, additional treatment was indicated to recapture post-treatment levels.

The current study employed two different conditions in which mother/child interactions were observed (i.e., mother distracted and mother/child play conditions). Comparatively, during baseline all the subjects in the study displayed less disruptive and dangerous behavior and higher rates of mother positive behavior in the mother/child play condition versus the mother distracted condition. After receiving treatment mother positive behavior increased significantly in both conditions. The positive parenting intervention (Session 2) provided two benefits in reducing child dangerous behavior. First, a child was more likely to play with his/her toys if s/he was receiving positive attention for doing so. This in turn reduced the likelihood that s/he would seek the mother's attention by engaging in dangerous behaviors (i.e., leaving the room, touching a dangerous object, climbing on a dangerous object, etc.). This suggests that structured play activities with high rates of praise prevent children from seeking parental attention by engaging in dangerous and/or disruptive behavior. This finding supports Cataldo et al.'s (1992) findings, which showed that parents of previously injured children had lower percentages of play with their children during unstructured times than parents with uninjured children. The importance of providing praise and conversation with a child to reduce misbehavior and dangerous behavior is further highlighted in previous treatment studies of injury prevention (Holden, 1983; Mathews et al., 1987).

Second, in order for the mother to effectively praise her child, she needed to spend more time observing her child's activity, thereby increasing her supervision of the child and making it more likely for her to prevent any possible initiation of child dangerous behavior. With the increased observation of her child the mother also gained valuable knowledge of her child's developmental capabilities, providing her with more information in which to anticipate and

prevent future dangerous behavior (Valsiner & Lightfoot, 1987). Several studies have found that poor knowledge of child development has contributed to caregivers not taking appropriate safety measures due to an overestimation by the parents of the child's developmental capabilities. (Glik et al., 1991; Wortel et al., 1994). In the present study knowledge of child development increased from baseline to post-treatment for all of the subjects, suggesting that the treatment improved the mother's developmental knowledge of her child. This may have indirectly affected her ability to perceive and prevent hazardous situations.

After examining the order at which various treatment components were administered it appeared that the reduction in child dangerous behavior across both conditions (i.e., mother distracted and mother/child play) could largely be attributable to home environment modifications and an increase in mother positive behavior. For three of the four subjects the largest percentage drop in child dangerous behavior and observable home hazards seems to have occurred following the home safety and positive parenting interventions. This finding is consistent with other home safety studies that provided feedback regarding home hazards and child management training to reduce child dangerous behaviors (Tertinger et al., 1984; Mathews et al., 1987). However, in Tertinger et al. (1984), the investigators provided feedback on hazards in the household environment but did not assist the family in modifying the environment nor did they attempt to modify the way the child was supervised. A disadvantage of only targeting hazards in the home is that it does not allow for a dynamic home environment with new hazards added periodically. Furthermore, all hazards cannot be removed and supervision will always be necessary. In the current study the investigators provided feedback regarding environmental hazards and physical assistance in making the needed environmental changes, and provided the mother with strategies

to improve her supervision of her child. Assisting the subject with environmental changes provided the added benefit of highlighting the child's developmental capabilities in the context of a hazardous situation and also helped to identify potential solutions to low-supervision situations (i.e., mother on the phone or preoccupied with another activity). Previous studies have found that mothers often do not anticipate injury causing events unless the object or situation is immediate (i.e., the mother and child are in same room) and obvious (i.e., child near an open fireplace) (Eichelberger et al., 1990; Garling et al., 1995). Consequently, just providing feedback on home hazards may not be enough to protect children from future hazards introduced in the home. However, combining feedback with assistance and education about what is harmful to children at certain ages may assist the mother in developing better problem solving strategies to avoid future hazards.

A limitation of the Mathews et al. (1987) study is that the investigators introduced the three interventions (i.e., time-out, child praise, and child proofing the home) simultaneously in the training sessions, making it difficult to ascertain which component resulted in the change in child dangerous behavior. This study employed the same three interventions, however, they were introduced separately (i.e., in three different sessions) to afford the possibility of a comparison of the three interventions. In the current study the interventions were introduced separately; however, only one observation was conducted between sessions making it difficult to be confident of data stability across time. Nevertheless, a dramatic decrease in child dangerous behavior for three of the four subjects seemed to occur following the first two sessions of treatment.

Overall, mother supervisory skill seemed to decrease post-treatment for all four subjects. This may be explained by the way that mother supervisory skill was operationally defined. Mother

supervisory skill was derived as a composite of several target behaviors that have a heavy emphasis on hazard prevention. Since child dangerous behavior decreased to near zero levels for the majority of the subjects following child proofing the home and positive parenting interventions, an increase in mother supervisory skill was unnecessary because child dangerous behavior was already low. Mother supervision is often viewed in the literature as critical in the prevention of childhood injuries and is often defined in terms of quantity rather than the quality of the specific skills. In the current study the definition of supervision emphasized a group of reactive behaviors (i.e., removing child from a hazard, removing a hazard, providing a time-out for dangerous behavior, etc.) rather than proactive behaviors (i.e., initiating safe activities, praise for on task behavior, describing the child's appropriate activity, etc.). Proactive behaviors in this study were quantified as mother positive behaviors. Specifically, the mother is supervising her child by keeping him/her interested in appropriate play activities while distracting them from seeking out dangerous activities (Holden, 1985).

Other studies have found a brief time-out effective in reducing child dangerous behavior (Mathews et al., 1987; Power & Chapieski, 1986). In the present study time-out effectiveness was never truly tested because child dangerous behaviors were reduced before receiving the time-out intervention. As was suggested above, the decrease in child dangerous behavior was the result of child proofing the home and mother positive behavior. With fewer hazards in the home and increased parental attention for appropriate behaviors the child had less of an opportunity to interact with hazards. Consequently, most mothers in this study never had the opportunity to use a time-out for dangerous behavior. Additionally, the time-out instruction was not given until the last session of treatment. Therefore, subjects had far less time to practice and implement this

intervention as compared with the concepts introduced in the positive parenting session. Prior to learning time-out usage, mothers would often use redirection in an effort to prevent her child from engaging in a dangerous behavior. They continued using this method even after learning how to use time-out. In the long run redirecting the child from a dangerous situation is more advantageous than giving a child a time-out after s/he has already made contact with a danger. By redirecting the child the mother avoids a potentially lethal situation while increasing the likelihood of the child engaging in a more appropriate activity. However, some researchers have argued that it is important for children to encounter dangerous situations so that they can develop experience negotiating dangers on their own (Garling et al., 1995; Valsiner & Lightfoot, 1987). Redirection in this context is avoidant since the child is diverted from contact with the hazard. It has been speculated that the time-out affords a greater learning opportunity for the child because s/he will be receiving a clear message that they are confronted with a potentially harmful situation. Future studies should compare the implementation of time-out and redirection to determine if there are more generalized outcomes associated with either of these approaches.

LIMITATIONS

In order to capture the transactional nature of the mother-child relationship, both mother and child behaviors were examined under two different conditions, each 10-minutes in length. Unfortunately, having two separate conditions and several variables made it difficult to achieve a stable baseline for each behavior in the two conditions. Therefore, an a priori decision was made that data stability in baseline would be achieved for child dangerous behavior only in the mother distracted condition. However, due to the variability of a child's interaction with dangers, some dramatic fluctuations were noted. For each subject baseline was discontinued only after an

upward trend was achieved in the mother distracted condition to enhance experimental control. In all four subjects child dangerous behavior dropped below baseline levels immediately following the introduction of treatment and continued a downward trend to zero for the remainder of the study. Consequently, the stability of child dangerous behavior in the treatment phase further demonstrated experimental control despite having a variable baseline (Parsonson & Baer, 1978).

However, treatment stability was not achieved for all of the target behaviors discussed. For example, mother positive behavior had an abrupt and dramatic increase that eventually displayed a decreasing trend up to the end of the study. Despite a decrease from high levels at follow-up mother positive behaviors remained above baseline levels indicating the maintenance of the treatment effect. Overall, the effectiveness of the treatment on child disruptive behavior was variable and inconclusive. Child disruptive behavior did not decrease or show stability after the treatment unlike child dangerous behavior. This indicates that this treatment, which was primarily geared towards dangerous behavior, is not sensitive to correcting disruptive behaviors. It appears that a treatment must be devised to target disruptive behaviors directly.

Another limitation of this study is the insufficient number of observations available to conclusively support that the individual treatment components impacted child dangerous behavior. Due to limited resources and the struggle to maintain subject participation, only one data point was gathered after each treatment was introduced. The order in which the treatment components were introduced could have also had an effect on the target behavior. It may have been that any treatment component introduced first would have brought about a change in behavior. One way to correct for this in future studies would be to vary the order in which the various treatment components were introduced for subjects (Bailey & Bostow, 1979).

There are also concerns about the somewhat artificial environment created by the presence of the investigator in the videotaped sessions. Subject reactivity may have impacted behavior such that it created the desired effect. However, one might suspect that reactivity would not have yielded a discrepancy between baseline and post-treatment behavior. In baseline the subjects did not know what was expected of them. Prompting the subjects to use their skills during the videotaping may have also helped to create the desired effect. Study 1 revealed that in the absence of prompting the mothers were less likely to use the new skills. Ways to minimize reactivity influences should be considered for future studies.

The current study employed a multiple baseline design across subjects to test the effectiveness of a behavioral and educational package designed to reduce childhood dangerous behavior. The results suggested that interventions focused on safety awareness in the home, child proofing the home, and increasing a mother's positive interactions with her child were important in reducing child dangerous behavior. All of the subjects exhibited some decrease in child dangerous behavior, an increase in mother positive behaviors, and a decrease in observable home hazards. Short-term follow-up data indicated that two of three mothers maintained some of the gains from treatment but that additional treatment sessions were necessary to regain treatment level performance. Additional work needs to be done to assess the effectiveness of follow-up treatment sessions on maintaining treatment level reductions in child dangerous behavior and observable home hazards.

Observable home hazards in particular often fluctuate over time as new dangers are introduced (i.e., potted plants, appliances, medications, beauty products, etc). The safety modifications that were made in mothers homes in this study were conducted in conjunction with

the therapist, raising the question as to whether the mother's will be able to generalize their knowledge about dangers to new dangers introduced at a latter point in time. Tertinger et al. (1984) study revealed that generalization of hazard removal to new categories of dangers virtually never occurred without direct intervention by a professional. This suggests that periodic home visits to "at risk families"(i.e., adolescent mothers) for injuries may be needed to maintain low levels of hazards in the household.

Although the current study had difficulty in producing an effect with mother's supervisory skills the amount of time mothers spent observing and praising their children for positive behaviors appeared to be correlated with the decrease in child dangerous behavior. These results partially support Mathews et al.'s (1987) treatment study designed to reduce infant dangerous behavior through the use of safety education and time-out, but they do not fully explain the usefulness of a time-out for child dangerous behavior. In the current study time-out was not necessary to produce a decrease in child dangerous behavior. Future studies in this area should explore the relative effectiveness of proactive parent behaviors (i.e., child-proofing the home, mother positive attention, and child redirection) and reactive parent behaviors (i.e., time-out, removal of a child from a hazard) for preventing dangerous behaviors and subsequent injuries.

The current study was not designed to address the new dangers that a child encounters, as s/he grows older. In order to better serve an at risk population such as adolescent mothers, periodic follow services are needed at various points in a child's development so that new areas of potential harm can be targeted and treated. For example, preventing dangers in a 8-year-old who is capable of talking and understanding potential dangers in his or her environment will be different those behaviors a mother would use with a 2-4 year-old who may or may not be ready to

understand dangers and safety information. Garling and Garling (1995) noted that mother's often overuse safety skills training with their children when they should be supervising their child, changing the environment, or physically restricting the child. A longitudinal study examining families at risk for injuries (i.e., adolescent mothers) would provide the opportunity to implement treatments more appropriate to the child's developmental level.

In summary, the present results highlight the importance of a home based treatment study to reduce dangerous behavior in children of adolescent mothers. Specifically, developmentally relevant safety information, child-proofing the home, and child management strategies to increase positive mother behaviors contributed to lower rates of child dangerous behavior and observable home hazards. Although a treatment affect was reached in this study after meeting in weekly 2 hour sessions across 4 weeks, the long term maintenance of treatment gains is not known. Future research should focus on implementing periodic follow-up treatment sessions over a longer period of time to test the maintenance of long term gains. The injury literature, using a public health perspective, to date has focused on making environmental (i.e., passive) changes to impact childhood injury rates. However, the results of this study suggest that treatment gains may be managed in at risk population for injuries with a multi-treatment approach that combines environmental modification and education about household hazards and child development with behavioral strategies to increase maternal supervision.

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Table 1**Study 2 Baseline and Treatment Time in the Study**

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 15	Wk 17	Wk 18
Subject 5	BA	BA	SE1	SE2	SE3	SE3	SE4	--	--	--	Fl	--
Subject 6	BA	BA	BA	SE1	SE2	SE3	SE4	--	--	Fl	--	--
Subject 7	BA	BA	BA	BA	SE1	SE2	SE3	SE4	--	--	--	--
Subject 8	BA	BA	BA	BA	BA	SE1	SE2	SE3	SE4	--	--	Fl

BA = Baseline

SE1 = Home and Child Safety Intervention. Home safety recommendations were derived from the HAPI and FSS and reviewed with the mother. The primary investigator assisted the mother in child-proofing her home based on problem areas identified from the HAPI.

SE2 = Positive Parenting Intervention. This intervention contained information regarding positive praise and verbal description of a child's activity.

SE3 = Giving Mandts Intervention. This intervention consisted of teaching the mother to give effective commands to a child in a firm and loving manner.

SE4 = Time-out Intervention. The final intervention provided information and practice with implementing a brief time-out for child dangerous behavior and uncontrollable disruptive behavior.

FL = Follow-up

Table 2**Study 2 Subjects' Pre and Post Treatment Means of Percent Occurrence from the Mother Distracted Condition of Child Dangerous Behavior, Child Disruptive Behavior, Maternal Supervisory Skill, and Maternal Positive Behavior**

Subjects	Pre-Treatment				Post-Treatment			
	Child Behaviors		Mother Behaviors		Child Behaviors		Mother Behaviors	
	Dangerous	Disruptive	Supervisory Skill	Positive	Dangerous	Disruptive	Supervisory Skill	Positive
5	24%	3%	15%	8%	10%	22%	9%	46%
6	25%	12%	2%	0%	8%	23%	9%	45%
7	27%	10%	7%	7%	7%	3%	5%	44%
8	46%	10%	5%	2%	28%	23%	0%	38%

Table 3

Study 2 Subjects' Pre and Post Treatment Means of Percent Occurrence from the Mother/Child Play Condition of Child Dangerous Behavior, Child Disruptive Behavior, Maternal Supervisory Skill, and Maternal Positive Behavior

Subjects	Pre-Treatment				Post-Treatment			
	Child Behaviors		Mother Behaviors		Child Behaviors		Mother Behaviors	
	Dangerous	Disruptive	Supervisory Skill	Positive	Dangerous	Disruptive	Supervisory Skill	Positive
5	3%	0%	0%	37%	0%	4%	0%	55%
6	16%	13%	1%	26%	3.3%	35%	3%	36%
7	13%	0%	0%	17%	0%	0%	0%	63%
8	28%	23%	1%	8%	3%	3%	0%	50%

Table 4

Study 2 Subjects' Pre and Post Treatment Measure of Observable Home Hazards (Derived from the HAPI)

	Pre-Treatment				Post-Treatment			
Subjects	Suffocation	Poisons	Sharps	Total	Suffocation	Poisons	Sharps	Total
5	15	25	18	60	0	4	3	7
6	25	10	23	59	13	0	6	19
7	28	22	12	66	10	12	5	29
8	19	12	0	31	9	0	0	9

Table 5

Study 2 Subjects' Pre and Post Treatment of Maternal Efficacy for Providing Basic Child Care and Child Safety

	Pre-Treatment			Post-Treatment		
Subjects	Child Care	Child Safety	Total Score	Child Care	Child Safety	Total Score
5	36	24	60	36	24	60
6	27	21	48	32	23	55
7	29	21	50	31	23	54
8	33	20	53	34	22	56

Table 6**Study 2 Subjects' Pre and Post Treatment Measures of Total Parental Stress and Domain Scores**

	Pre-Treatment			Post-Treatment		
Subjects	Child Domain	Parent Domain	Total Score	Child Domain	Parent Domain	Total Score
5	96	118	214	85	109	194
6	130	136	266	120	160	280
7	120	97	245	97	118	215
8	113	134	247	107	132	239

Comparison Means and Standard Deviations of Parental Stress and Domain Scores of Pregnant Adolescent and Adult Subjects Used in Sommer et al.'s (1991) Study

	Pregnant Adolescents			Pregnant Adults		
Means	111	137	244	99	121	215
SD	18	23	38	16	21	34

Table 7

Study 2 Subjects' Pre and Post Treatment Raw Score Measures of Cognitive Readiness to Parent

	Pre-Treatment			Post-Treatment		
Subjects	Attitudes	Style	Knowledge	Attitudes	Style	Knowledge
5	66	106	26	66	109	29
6	68	92	24	75	100	32
7	66	126	26	70	111	33
8	67	126	22	78	131	33

Comparison Means of Cognitive Readiness Measures for Pregnant Adolescent and Adult Subjects Used in Sommer et al.'s (1991) Study

	Pregnant Adolescents			Pregnant Adults		
Means	60	82	23	65	87	27

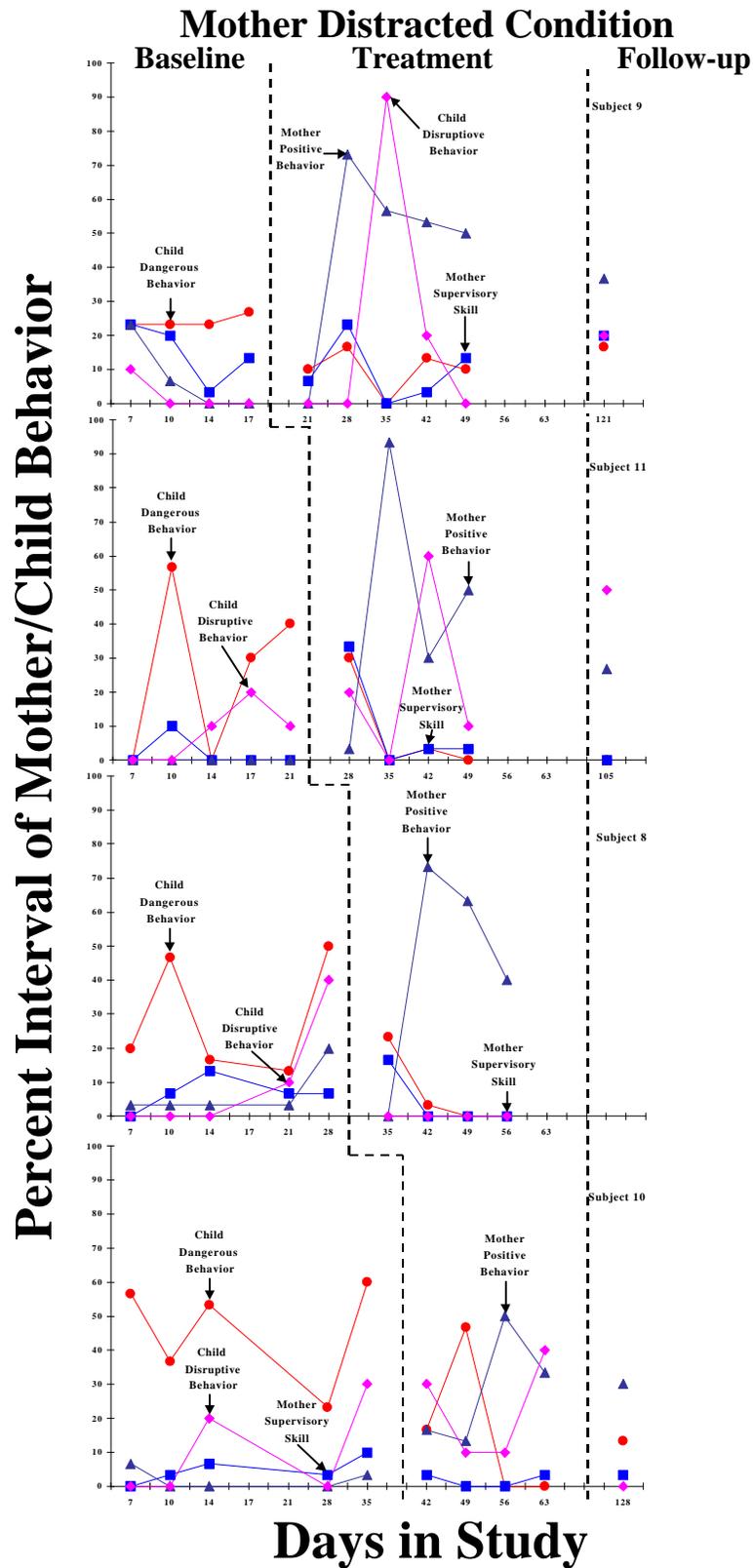


Figure 1. Study 2 Subjects – Percent Interval of child dangerous, child disruptive, mother supervisory skill, and mother positive behaviors across Baseline, Treatment, and Follow-up.

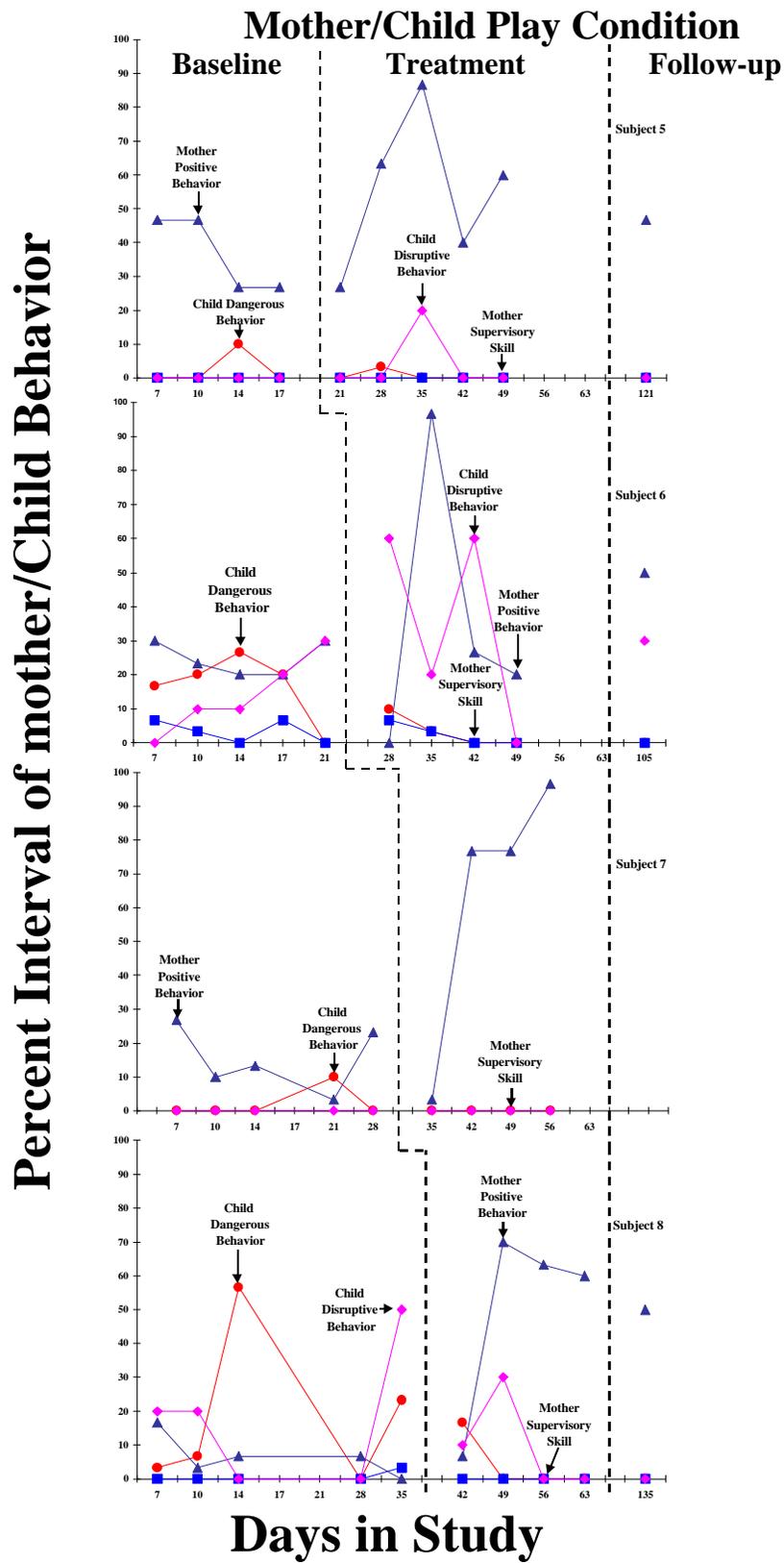


Figure 2. Study 2 Subjects - Percent interval of child dangerous, disruptive behavior, mother supervisory skill and positive behavior across Baseline, Treatment, and Follow-up.

APPENDICES

- A - Study 1
- B - Child Dangerous Behaviors
- C - Maternal Behaviors
- D - The Home Accident Prevention Inventory
- E - Knowledge of Child Development
- F - Parenting Style Questionnaire
- G - Parent Attitude Questionnaire
- H - Maternal Efficacy Questionnaire
- I - Parenting Stress Index (Not included due to copyright)
- J - Demographic Information
- K - Study 2 Baseline & Treatment Protocol
- L – Framingham Safety Survey (Not included due to copyright)

Appendix A

Study 1

Hypotheses

1. Education of normative child development and training on how to be a positive mother will result in an increase in maternal efficacy, positive behaviors directed towards the child, and also her knowledge of what her child is developmentally capable of doing. This aspect of the treatment is not expected to directly effect child dangerous behavior but should indirectly increase the mother's supervision of her child since she will be observing her child more to identify opportunities to praise him/her.
2. Recommendations for improving observable hazards in the home along with developmentally relevant child safety information will result in an increase in maternal efficacy related to child safety issues, an increase in maternal supervisory skills, and also a reduction in the number of observable hazards in the home.
3. Parent behavioral training (i.e., time-out for disruptive and dangerous behavior and mands to increase child compliance) will result in a significant decrease in child dangerous behavior along with a greater increase in maternal self-efficacy and supervisory skill. It is also expected that mother's self-reported stress (from the Parenting Stress Index) of her relationship with her infant will be reduced from baseline levels.
4. Child dangerous behavior is expected to remain low, while maternal supervisory skills, maternal positive behavior, and maternal self-efficacy will remain high at a two-month follow-up.
5. Subjects who received Treatment 1 (i.e., Normal Child Development and Positive Parenting

Education) first would experience greater success than those subjects who received Treatment 2 (i.e., Child Proofing the Home and Parent Behavior Training) first.

METHOD

Subjects

Six, adolescent new mothers between the ages of 16-19 years old ($M = 17$) were recruited for this treatment study. Two of the mothers dropped out of the study before receiving treatment due to personal circumstance in their life (i.e., one mother started a new job and no longer had time to meet, and the other mother simply did not believe that this project would benefit her and her child). No further information will be provided on the two mothers that prematurely dropped out of the study. Complete baseline and treatment data are reported for only 2 of the remaining 4 mothers in the study. The other 2 mothers in the study dropped out half way through the first phase of treatment due to the premature departure of the primary therapists working with them.

There were four children in the study (two male and two female) whose ages ranged from 12-24 mos. ($M = 15$ mos.). Two of the mothers were Caucasian and two were African American. Three of the children were walking at the time of the study and one child began to walk during the baseline data collection. Subjects were provided with various gifts related to caring for a toddler (e.g., diapers, toys, coupons for baby food, etc.), and home safety products (e.g., fire extinguisher, cabinet safety locks, fire alarms, batteries for fire alarms, etc.) as remuneration. All 4 mothers were recruited using social workers from the Department of Health and Human Services in Montgomery and Giles County.

Design and Procedure

All observations and interventions were conducted weekly in the mother's home. Three graduate students from Virginia Tech served as the primary therapist for each of the subjects (one graduate student worked with two subjects) and four undergraduate students assisted with running the video camera and administering self-report measures. Each tape was marked with a code number and stored in a locked file cabinet.

A multiple baseline design across subjects was used for this study (Barlow & Hersen, 1984). Following an initial baseline of two to five weeks, two separate phases of the intervention were randomly assigned to each subject to evaluate its effectiveness on several target behaviors: (a) Child dangerous behavior (operational definition, see Appendix B); (b) Maternal positive behavior (operational definitions, see Appendix C); and (c) Maternal supervisory skills (operational definition, see Appendix C). Percentage occurrence for each operationally defined behavior was calculated based on the following formula: number of intervals with occurrences divided by total number of intervals (60) X 100. In addition, pre and post measures of observable common home hazards (e.g., matches accessible to child, no batteries in smoke detectors, access to sharp objects, etc.), and self-report measures of maternal self-efficacy, parenting stress, cognitive readiness to parent, and knowledge of home safety were administered.

Baseline

During baseline, direct observation of child dangerous behavior, maternal positive behavior and maternal supervisory skill were assessed twice a week for 2-6 weeks. The length of the baseline varied from subject to subject in order to conform to a multiple baseline design across subjects. Subject 1 had a 3-week baseline, Subject 4 a 5-week baseline, and Subject 2 and 5 each

had a 4-week baseline, respectively (see Table A-1). Each subject had no less than four 20-minute baseline sessions.

The baseline period included a weekly 20-minute video sample of child and mother behavior during a mother distracted condition. During the taping the mother would typically begin by filling out several self-report questionnaires but would also have access to popular magazines when she finished the questionnaires. The child was allowed to freely play on his or her own during the 20-minutes of taping. However, the mother was also encouraged to monitor her child and intervene whenever appropriate. In addition, a number of other baseline measures were collected such as observable home hazards, mother's cognitive readiness to parent, maternal self-efficacy, parenting stress, and basic demographic information.

Intervention

The treatment consisted of two phases that were presented randomly to each mother during weekly sessions of 2-3 hours. The last half-hour of each treatment session was spent videotaping the 20-minute behavior sample. At the start of the study the mothers were not prompted to use their new skills during the videotaping. However, in the last two sessions of treatment for Subjects 1 and 2 and the last session of treatment for Subject 3 mothers were encouraged to try out their new skills during the video. Post-treatment measures included the Home Assessment Prevention Inventory (HAPI), cognitive readiness to parent measures, maternal efficacy, and Parenting Stress Index (PSI). The Framingham Safety Survey (FSS) was used only as tool to identify and educate mothers about their individual safety awareness it was not intended to be a pre-post measure of safety awareness. All of the intervention sessions were conducted in a didactic format where information was provided to the mother from a treatment protocol that was

given to each therapist. The two treatment phases included the following:

Normal Child Development and Positive Parenting Education – Treatment 1

(Sessions 1, 2, and 3). This intervention included three sessions that focused on problem solving skills, positive child mother interactions, and education of normative development in children. The first session consisted of teaching the mother problem solving strategies that could be applied to a broad area of child management issues. The second session consisted of a review of normative child development. General knowledge of a child’s memory, impulsivity, and motor development was discussed in the context of development. In the last session of Treatment 1 the mother was trained to praise her child for appropriate behaviors, describe and narrate her child’s activity as he or she played, and identify and initiate activities with her child that would afford an opportunity for the mother to praise him/her.

Child Proofing the Home and Parent Behavior Training – Treatment 2 (Sessions 4,

5, and 6). This intervention consisted of three sessions during which therapists made recommendations about child home safety, concise and effective command giving to insure child compliance, and how to ignore mild irritating behaviors while providing a time-out for dangerous and disruptive behaviors. Subjects completed the FSS for children between the ages of 1-4 years old. This survey was used as a way to provide relevant safety information based on “at risk” responses. Mothers were provided with both education about home safety information and assistance in child-proofing their home (e.g., installing new batteries in smoke detectors, installing child safety locks on kitchen cabinets, and offered suggestions on how to remove hazardous objects from within a child’s reach).

Follow-up

Follow-up was not conducted with Study 1 subjects since the study was redesigned in order to improve treatment outcomes. Moreover, the principal investigator moved away from the area to fulfill an internship requirement and was unable to pursue any further direct contact with the mothers in the study.

Dependent Variables

The same measure and dependent variables that were used in Study 2 were also used for Study 1.

Interobserver Agreement

Four undergraduates from Virginia Tech were recruited to help code the videotapes of the mother-child interactions. They each had a minimum of 8 hours of training related to the coding system in which they needed to achieve at least 80% agreement with each other for 3 consecutive 20-minute sessions before coding the rest of the tapes. Observers watched videotapes of the mother-child interactions while taking paper and pencil frequency data of operationally defined behaviors for every 20-second interval (see Appendix B & C). Interobserver agreement was assessed by having two observers simultaneously but independently collect the data for a 20-minute video session. Reliability was assessed for Subjects 1 and 4 during 37.5% (3 out of 8 sessions) of baseline sessions and 50% (6 out of 12 sessions) of treatment sessions. Reliability was only assessed for 25% (2 of the 8 sessions) of baseline sessions for subjects 2 and 3. Reliability was not calculated for the treatment sessions of Subjects 2 and 3 since they terminated their participation prematurely.

Reliability percentages were calculated by dividing the sum of total agreements (across 60 20-s intervals) by the sum of total agreements plus disagreements (across 60 20-s intervals) for each

behavior. These fractions were averaged across each mother (e.g., mother follows, mother praise, mother time-out, etc.) and child behavior (e.g., disruptive behavior, dangerous behaviors, compliance, etc.) and then multiplied by 100%. Therefore, for each 20-minute session where reliability was calculated, a total reliability was derived for both mother and child behaviors. Mean agreement scores for mother behaviors across all conditions were 92.6% (88.6%-95.3%) for Subject 1, 90.3% for Subject 2, 94.5% for Subject 3, and 95.3% (92.2%-98.9%) for Subject 4,. Mean agreement scores for child behaviors across all conditions were 91.8% (88.4%-94%) for Subject 1, 95.3% for Subject 2, 96.5% for Subject 3, and 96.1% (92.8%-97.6%) for Subject 4.

Data Analysis

The results were analyzed by visual inspection of a graphic display of the data (Barlow & Hersen, 1984) across baseline and treatment phases. According to Barlow and Hersen (1984), demonstration of a reliable effect is determined by a replication of the intervention effect across subjects. For the current study, baseline conditions were time lagged with subjects having different numbers of days within their baseline observations. The differing number of baseline sessions was designed to control for time and practice effects. Consequently, the experimenter gains confidence in the treatment's effectiveness when the intervention effect is reproduced across subjects and the change occurs when and only when the intervention is introduced. Pre and post-treatment scores were reported for several self-report measures administered. However, due to the small subject sample no formal statistics were used to determine statistical differences.

RESULTS

Subject 1

Videotaped behaviors

In Subject 1's last session of Treatment 2 (day 77 of the study) two significant procedural changes ("Probe condition") were made in an attempt to increase the treatment effect on the targeted behaviors. First, additional time was spent directly modeling and rehearsing (approximately 30-40-minutes) the new skills the mother had been taught. Second, the mother was specifically prompted to use her new skills during the 20-minute videotaping (see Appendix K for exact wording). Previously, during the 20-minute video the mother had been encouraged to intervene if she believed it was necessary. However, in the last session of Treatment 2 she was encouraged to use each specific skill that she had been taught over the course of the entire treatment. Towards the end of Subject 1's intervention the primary investigator had already decided that a revision of the treatment package was needed along with recruiting a new subject sample. The change in procedure was viewed as a way to pilot the new method for improving the treatment package.

Figure A-1 depicts the percent interval of child dangerous, child disruptive behavior, mother positive behavior and mother supervisory skill for all subjects in Study 1. The top graph of Figure A-1 is the data for Subject 1. The mean percent interval for child dangerous and disruptive behavior occurred at moderate levels (\underline{M} = 18.8% and 20%) during baseline. The mean percent interval for mother supervisory skill and mother positive behavior remained low (\underline{M} = 6.3% and 5.4%). After receiving Treatment 1 (i.e., Normal Child Development and Positive Parenting Education), disruptive behavior increased slightly (\underline{M} = 26%) while child dangerous behavior increased and

stabilized at moderate levels (\underline{M} = 38%). Mother supervisory skill and positive behavior also increased slightly from baseline (\underline{M} = 7.2% and 12.8%). After completing Treatment 2 (i.e., Child Proofing the Home and Parent Behavior Training), child dangerous and disruptive behavior on average decreased from Baseline and the Treatment 1 phase (\underline{M} = 12%, \underline{M} = 21%) and dropped to near zero occurrences in the last session of Treatment 2. Mother supervisory skill also decreased (\underline{M} = 5%) in the last session of Treatment 2 while mother positive behavior (\underline{M} = 27%) dramatically increased to over 60% in the last session of Treatment 2.

HAPI and FSS

Table A-2 reveals the total number of observable hazards identified from the HAPI for Subject 1. During baseline a total of 37 observable hazards were identified in the household. For Subject 1 the HAPI identified specific categories of hazards: 22 suffocation hazards, 13 poison hazards, and 2 burn hazards. A 62% reduction in total household hazards (total hazards = 14) was achieved for Subject 1 by the end of Treatment 2.

The total safety score (pre-treatment) on the FSS was 59%. The majority of the “at risk” responses were household, water, and burn hazards. There was no post-treatment administration of this survey.

Maternal efficacy

Table A-3 reveals the total raw score of maternal efficacy pre and post treatment for all of Study 1 subjects. Subject 1’s total score of maternal efficacy increased slightly by 10% from 46 to 50 at the end of Treatment 1. The majority of the increase in efficacy was related to items having to do with child care, not child safety. It appears that the category of child safety preparedness was not affected in any way by the interventions used in Treatment 1. When maternal efficacy was

measured again after Subject 1 had received Treatment 2 total maternal efficacy remained the same at 50. It appears that Treatment 2 added little to Subject 1's confidence to deal with child safety issues in the home.

PSI

In Table A-4 are the results of the Parenting Stress Index pre and post Treatment 2 for all of Study 1 subjects. For Baseline total parenting stress, Subject 1 was well within a normal range of functioning (205, 35th percentile) except for one subscale. *Reinforces parent* within the child domain was identified to be clinically significant (12, 85th percentile). The PSI was re-administered after receiving both Treatment 1 and 2. Post treatment scores revealed a slight decrease in total stress (195, 25th percentile). There was not much variability from the first and second administration of the PSI except that Subject 1 seemed to minimize stress related to her own functioning. A pattern of defensiveness was supported by a clinically significant score of 19 on the *defensive responding* subscale calling into question the validity of the post Treatment 2 scores.

Cognitive readiness to parent measures

These measures could not be adequately studied since no post treatment measures were given to any of the subjects of Study 1.

Subject 2

Videotaped behaviors

The second graph from the top of Figure A-1 is the data for Subject 2. The mean percent interval during baseline for child dangerous behavior occurred at moderate to high levels (M = 25%) while disruptive behavior occurred at low levels (M = 9.6%). The mean percent interval for mother supervisory skill and mother positive behavior during baseline remained low (M = 3.8%

and .83%). After receiving two sessions of Treatment 1 (i.e., problem solving and training to be a positive parent) disruptive behavior decreased (M = 0%) while child dangerous behavior also decreased slightly (M = 10%). Mother supervisory skill remained at 0% while mother positive behavior increased from baseline (M = 13.3%).

HAPI and FSS

During baseline a total of 50 observable hazards were identified in the household for Subject 2 (see Table A-2). The HAPI identified 4 specific categories of hazards: 34 suffocation hazards, 4 poison hazards, 10 sharp hazards, and 2 burn hazards. No post treatment administration of the HAPI was conducted since the subject dropped out of the study before treatment was completed. The total safety score (pre-treatment) on the FSS was 65%. The majority of the “at risk” responses were household, water, and burn hazards. There was no post-treatment administration of this survey.

Maternal efficacy

Total score of maternal efficacy during baseline for Subject 2 was 47 (see Table A-3). Subscale measures of maternal efficacy of child care and child safety preparedness were 27 and 20, respectively. No post-treatment measures of maternal efficacy were collected since Subject 2 prematurely dropped out of treatment.

PSI

Subject 2’s total parenting stress was well within the clinically significant range(300, 97th percentile) at baseline (see Table A-4). Scores for all of the subscales in the child domain and the majority of the subscales in the parent domain were clinically significant. Subscales that were most significantly elevated within the child domain were *demandingness* (30, 97th percentile)

adaptability (43, 99th percentile) and within the parent domain *isolation* (23, 99th percentile).

Subject 3

Videotaped behaviors

Due to Subject 3's busy school schedule a 6-week break in the administration of the treatment package was experienced. The primary investigator then decided to pilot some aspects of a revised treatment (to be used in Study 2) for the last session conducted with the subject.

The third graph from the top of Figure A-1 is the data for Subject 3. During baseline the mean percent interval for child dangerous and disruptive behaviors occurred at low levels (\underline{M} = 10%, 5%) Similarly, during baseline the mean percent interval for mother supervisory skill and mother positive behavior remained low (\underline{M} = 4.2% and 5%). However, mother supervisory skill appeared to increase as child dangerous behavior increased. Initially, after receiving one session of Treatment 2 (i.e., reviewed child safety information), child dangerous behavior remained at baseline levels (20%). However, child dangerous behavior dropped to 0% after a condensed version of a revised treatment was implemented. (This was a condensed version of the treatment to be used in Study 2 which included information on positive parenting, appropriate command giving and using a time-out for dangerous and/or disruptive behavior). Similarly, mother positive behavior started off at baseline levels 10% and then dramatically increased to 70% in the final session of treatment.

HAPI and FSS

During baseline a total of 45 observable hazards were identified in the household for Subject 3 (see Table A-2). The HAPI identified four specific categories of hazards: 17 suffocation hazards, 21 poison hazards, 3 sharp hazards, and 4 burn hazards. No post treatment

administration of the HAPI was conducted.

The total safety score (pre-treatment) on the FSS was 66%. The majority of the “at risk” responses were household and burn hazards. There was no post-treatment administration of this survey.

Maternal efficacy

The total score of maternal efficacy during baseline for Subject 3 was 52 (see Table A-3). Subscale measures of maternal efficacy of child care and child safety preparedness were 34 and 18. No post-treatment measures of maternal efficacy were collected.

PSI

Subject 3’s total parenting stress was within normal limits (220, 50th percentile) at baseline except for several subscales (See Table A-4). These subscales were *demandingness* within the child domain (24, 90th percentile), *isolation* within the mother domain (23, 99th percentile) and *health* within the mother domain (16, 85th percentile). No post treatment measure of parenting stress was collected.

Subject 4

Videotaped behaviors

The bottom graph of Figure A-1 is the data for Subject 4. The mean percent interval for child dangerous and disruptive behavior occurred at low levels (M = 18.3% and 0%) during baseline. Similarly, the mean percent interval for mother supervisory skill and mother positive behavior remained low (M = 9.6% and 2.5%). After receiving treatment 1 disruptive behavior remained at zero while child dangerous behavior decreased slightly (M = 8.3%). Similarly, mother supervisory skill and positive behavior decreased from baseline (M = 3.3% and 0%). After

completing Treatment 2 child dangerous behavior on average increased from Treatment 1 but was slightly lower than baseline (M = 12.7%). During Treatment 2 the trend for child dangerous behavior was down with last session decreasing to 8.3% occurrences. However, both mother supervisory skill (M=12.2%) and mother positive behavior (M = 27%) increased from baseline and Treatment 1.

HAPI and FSS

The total number of observable household hazards identified from the HAPI for Subject 4 was 15 during baseline (see Table A-2). The HAPI identified 3 specific categories of hazards: 1 suffocation hazard, 13 poison hazards, and 1 burn hazard. After receiving both Treatment 1 and 2, an 87% reduction was achieved in total household hazards (post total hazards = 2) for Subject 4.

The total safety score (pre-treatment) on the FSS was 72%. The majority of the “at risk” responses were household, and burn hazards. There was no post-treatment administration of this survey.

Maternal efficacy

The total raw score of maternal efficacy for Subject 4 increased slightly from 52 at baseline to 53 by the end of Treatment 1 (see Table A-3). Similarly, total maternal efficacy increased to 56 following the completion of Treatment 2. The increase in confidence seems to have occurred in both areas of general child care and child safety preparedness.

PSI

Subject 4’s total parenting stress was well within the normal range of functioning (218, 48th percentile) at baseline (see Table A-4) except for one subscale. *Health* within the parent domain was in the clinically significant range (18, 93th percentile). In addition, Subject 4 endorsed

a number of life stressors (i.e., death of relative, change of job, etc.). At the end of Treatment 2 total stress (233, 65th percentile) increased from baseline. However, there were no subscales within the clinically significant range despite an increase in overall stress.

DISCUSSION

Study 1 was designed to test the effectiveness of an intervention to reduce child dangerous behavior and increase mother supervisory skills, positive behaviors towards her child, and maternal self-efficacy using a multiple baseline design across subjects. The data revealed that after receiving Treatment 1 there was no overall decrease in child dangerous behaviors of the two subjects who completed the study. However, there was a slight increase in mother positive behaviors, maternal efficacy, and supervisory skills for one of these two subjects. During Treatment 2 for Subject 1, the “probe condition” was introduced at the last session of treatment in hopes of maximizing treatment effectiveness. As a result there was a decrease in child dangerous behavior and an increase in mother positive behavior. For the other subject who had complete data there was no “probe condition” and furthermore there was no overall effect. Interestingly, for one of the subjects with incomplete data, the “probe condition” elicited a striking increase in mother positive behaviors and a decrease in child dangerous behavior. After the completion of the total intervention there was an overall decrease in observable home hazards and an increase in maternal efficacy for the two subjects for whom there were complete data. Additionally, reported parent stress decreased for one subject and increased for the other. The cognitive readiness measures were not obtained post-treatment.

Due to the high rate of subject drop-out, a weak intervention effect (prior to the “probe condition”), and data variability, little can be determined about the efficacy of the current

treatment package. Originally, six subjects were recruited for this study but because of scheduling conflicts and lack of subject interest two of the subjects dropped out before baseline could be completed. In addition, two of the four remaining subjects (Subjects 2 and 3) dropped out after only receiving part of the treatment due to scheduling conflicts, other competing interests, and a change in therapists. Consequently, there were complete data for two subjects. The design of the present study called for two separate treatment packages (i.e., Treatment 1 - Normal child development and positive parenting education and Treatment 2 – Child proofing the home and parent behavior training) to be given in a counterbalanced order across six subjects. It was believed that informing adolescent parents about child development and positive parenting would provide the necessary base to more effectively implement supervision of their child. However, this hypothesis was unable to be tested due to subject attrition and lack of subsequent data.

There were several problems that became apparent soon after implementing treatment with the subjects. First, subjects had little time to practice and receive feedback concerning the specific skills that were being taught: catch the child being good, giving mands (e.g., “Put your toys in the toy box”, “Bring the shoes on the floor to me”, etc.), narrating the child’s play, and other skills. Second, the scripts that the therapists read were overly focused on providing factual information that did not always translate well into behaviors that the mothers could perform. Finally, the treatment’s effectiveness was diluted by the many components (i.e., problem solving, developmental norms education, teaching mands, safety information, etc.) that were included. By trying to address all the difficulties facing the adolescent mothers, the original targeted goal of reducing child dangerous behavior was lost in the mix of treatment components. Moreover, a lack of data stability in baseline and trending in the wrong direction (see Figure A-1) for child

dangerous behavior diminished the power to make strong statements about the treatment's effectiveness (Bailey & Bostow, 1979). Ideally, baseline data stability should have been achieved before introducing treatment.

Due to these methodological problems and the inability to draw definitive conclusions from the data the study was redesigned and a new subject sample was collected. The redesigned treatment package included a condensed version of the treatment, more time for role playing skills, and more extensive prompting and reminding subjects to employ their newly learned skills in interactions with their children. Additionally, some operational definitions of behaviors were modified in order to more directly measure skills taught during treatment. Finally, the order effect hypothesis although still believed to be valuable (see Hypothesis 5), was eliminated due to the lack of subject availability and time to recruit subjects

Table A-1

Study 1 Baseline and Treatment Time in the Study

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12
Subject 1	BA	BA	BA	T1	T1	T1	--	T2	--	T2	Probe	--
Subject 2	BA	BA	BA	BA	T1	T1	--	--	--	--	--	--
Subject 3	BA	BA	BA	BA	T2	T2	--	--	--	--	--	Probe
Subject 4	BA	BA	BA	BA	BA	T1	T1	--	T1	T2	T2	T2

BA = Baseline

T1 = Normal Child Development and Positive Parenting Education. This intervention included three sessions that focused on general problem solving skills (Session 1), positive child mother interactions (Session 2), and education of normative development in children (Session 3).

T2 = Child Proofing the Home and Parent Behavior Training. This intervention consisted of three sessions that made recommendations about child home safety (Session 4), concise and effective command giving to insure child compliance (Session 5), and how to ignore mild irritating behaviors while providing a time-out for dangerous and disruptive behaviors (Session 6).

Probe = Prompted the subjects to use the skill that they were taught during treatment provided more modeling and practice with the specific child management skills already reviewed (i.e., praise, time-out, command giving).

Table A-2

Study 1 Subjects' Pre and Post Treatment Frequency Measure of Observable Home Hazards (Derived from the HAPI)

Subjects	Pre-Treatment				Post-Treatment			
	Suffocation	Poisons	Sharps	Total	Suffocation	Poisons	Sharps	Total
1	22	13	0	37	12	2	0	14
2	34	4	10	50	*	*	*	*
3	17	21	3	45	*	*	*	*
4	1	13	0	15	1	0	0	2

Table A-3

Study 1 Subjects' Pre and Post Treatment of Maternal Efficacy for Providing Basic Child Care and Child Safety

Subjects	Pre-Treatment			Post –Treatment 1			Post -Treatment 2		
	Child Care	Child Safety	Total Score	Child Care	Child Safety	Total Score	Child Care	Child Safety	Total Score
1	27	19	46	32	18	50	34	24	58
2	27	20	47	*	*	*	*	*	*
3	34	18	52	*	*	*	*	*	*
4	32	20	52	30	23	53	32	24	56

Table A-4

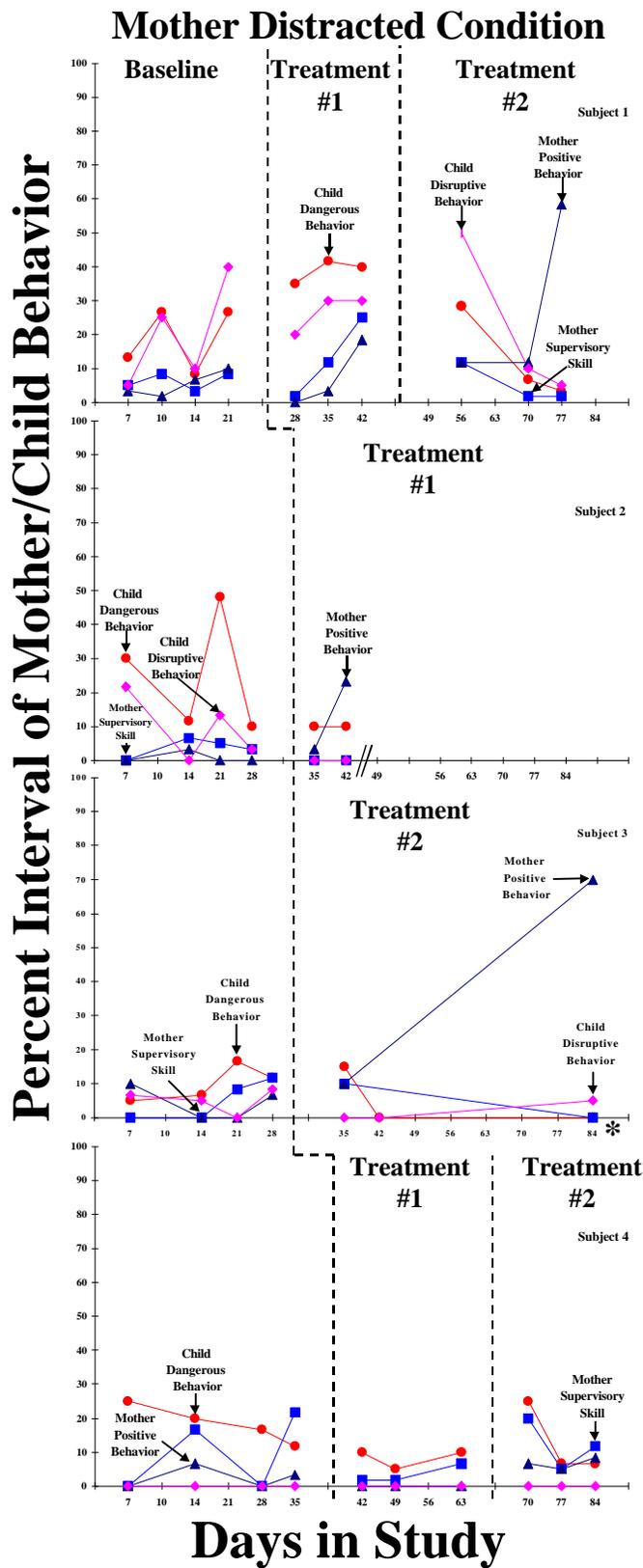
Study 1 Subjects' Pre and Post Treatment for Parental Stress Index Domain Scores

	Pre-Treatment			Post-Treatment		
Subjects	Child Domain	Parent Domain	Total Score	Child Domain	Parent Domain	Total Score
1	101	104	205	104	91	195
2	148	93	241	*	*	*
3	96	124	220	*	*	*
4	98	120	218	104	129	233

Table A-5

Study 1 Subjects' Pre and Post Treatment Raw Score Measures of Cognitive Readiness to Parent

Subjects	Pre-Treatment			Post-Treatment		
	Attitudes	Style	Knowledge	Attitudes	Style	Knowledge
1	65	98	18	*	*	*
2	59	72	16	*	*	*
3	61	107	24	*	*	*
4	58	97	28	*	*	*



FigureA-1. Study 1 Subjects – Percent interval of child dangerous, child disruptive, mother supervisory skill and mother positive behavior across Baseline, Treatment 1 (Normal child development and positive parenting education) and Treatment 2 (Child proofing the home and parent behavior training).

Appendix B

Child Dangerous Behaviors: Operational Definitions

I. Hazard Contact **Code: HC – specific hazard** Any activity in which the child engages that may result in physical injury in any of the following categories. Child must actually touch the hazard to be coded as such.

Rules for recording hazardous behavior are:

1. Recording of hazards begins with physical contact with a dangerous object and ends when the child ceases contact with the object. If a danger continues into a new interval record the danger once at the start of the interval and draw an arch line connecting the two intervals.
2. Record as a hazard even if the object is not immediately dangerous, but the child may not be able to differentiate between when the object is safe or dangerous

Example:

- a. When the child may not be able to differentiate between when the activity is safe or dangerous:

- Touching an unlit stove
- Grasping an unplugged electrical cord
- Playing on an unlit fireplace hearth or portable electric heater.

3. If 2 hazards (different object or actions) occur at the same time, score in succession.
4. No opportunity for dangerous behavior.

--There may be times when the child is engaged in an activity that prevents him/her from engaging in a dangerous behavior.

Examples:

- a. **Carrying:** **Code: PUp**

Mother picks up child in her arms. Continue to use this code until the mother puts the child down.

- b. **Clinging:** **Code: CL**

Child has both hands touching the mother. Cease coding until the child resumes activity of exploring. Exclude: When child is touching mother to stabilize

- c. **On Lap:** **Code: OL**

Child is sitting, standing, climbing, or crawling on parent's lap. Initially, record as "on lap" (OL) and then cease coding until the child is off the parents lap.

II. Disruptive Behavior **Code: DB**

Any overt child behavior that would be considered inappropriate or attention-seeking and that might be a stimuli for negative parent behaviors (as defined in our code) or that might distract the parent from an ongoing activity. **Code this every 1-minute interval instead of every 30 seconds.**

Note: Avoid minor whining or fussing that last less than 10 seconds.

A. Code only the following:

1. **Aggression:** Behaviors in which the child damages or destroys an object or attempts or threatens to damage an object or injure a person. The potential for damage to objects or injury to persons is the critical factor in scoring, not the actual occurrence. It is not scored as disruptive if it is appropriate within the context of the play situation (ramming toy cars in a car crash)

Examples:

- throwing objects overhead or further than 3 feet
- breaking or attempting to break an object
- hitting and/or kicking objects, people, or animals.
- biting, slapping, pinching, pushing hard
- threatening to do any of the above behaviors

2. Whining: Vocalizes in a complaining manner, usually accompanied by pouting facial expression

3. Tugging on mother or Nagging: Asking for something repeatedly after told "no" or being ignored.

4. Crying: Vocalizations and tears in eyes.

5. Yelling or screaming

6. Tantrum: Any combination of whining, yelling, crying, hitting, and kicking.

Exclude:

Noncompliance OP DEF: Any observable cues reflecting (1) the failure to initiate compliance within 5 seconds of the termination of a parental command or warning or (2) failure to maintain inhibition of a prohibited response for 5 seconds

III. Child Interacts With Materials Code: CIM

A. Use this code when the child is playing with some type of object such as toys, common household objects, books, etc. As long as it is not a hazardous object that could cause harm to the child then it is safe for them to play with. Off in the margin note the type of object they are playing with.

Note: Only use this code when the child is not engaged in a hazardous behavior.

IV. Child Plays Code: CP

A. Use this code when the child is obviously playing but without an object. For example, dancing, singing, playing patty cake or interacting with mother in a playful manner. Again describe in the margin the type of play.

Note: Only use this code when the child is not engaged in a hazardous behavior.

V. Child Leaves Room Code: LR

A. Use this code when the child leaves the room that the mother is currently in. There may be times when it will be impossible for you to know where the mother is located in relation to the child.

Note: Only use this code if you know for sure that the child has moved into another room that the mother is not in.

VI. Child Returns Code: Ret

A. If you have used the child leaves room code then you should have a corresponding child returns code for when the child returns to the same room that the mother is in.

VII. Compliance Code: C

A. Compliance is determined by the presence of an observable cue reflecting the initiation of compliance within 5 seconds of the termination of the parental command or warning.

1. Child will move towards specified goal with 5 seconds

2. Inhibition of a specified motor or verbal response for 5 seconds
3. Initiation of a specified task within 5 seconds

VIII. Noncompliance

Code: NC

Noncompliance is determined by the presence of an observable cue reflecting the failure to initiate compliance within 5 seconds of the termination of the parental command or warning or failure to maintain inhibition of a prohibited response for 5 seconds.

Specific Examples of Child Dangerous Behavior

I. SUFFOCATION Code: (S)

A. By INGESTION

1. Grasping a SMALL OBJECT--a small object is anything that fits in "No choke Testing Tube", but is no smaller than a peanut.

Examples of Dangerous Objects:

Non-Food-items

- quarter
- Lego block (not the extra large kind)
- cigarette butt
- bottle cap
- Fisher-Price person (older style not other newer Fisher Price toys or animals)
- Weeble (older version)

Food-items

- peanut
- M&M
- grape
- round piece of hot dog

Exclude: Any food items easily dissolved in saliva:

- cake
- Cheerios
- Soda crackers
- Generally any kind of soft food items

B. Grasping SOFT PLASTIC MATERIALS

1. Grasping any soft plastic or rubber that might block the air passage.

Example of Dangerous Objects:

- plastic bags
- plastic diapers
- balloon or piece of balloon, inflated or not
- plastic candy wrapper

C. By MECHANICAL OBJECT

1. Grasping a cord-a cord is a string or small rope consisting of several strands woven or twisted together or an item resembling string or rope but made out of some other material (e.g., plastic and electrical chords). Cord must be at least 2 feet long and attached to a large, heavy, or permanent object. Also score of the child grasps an object attached to the cord (e.g., a plugged in iron).

Example of Dangers:

- Electrical cord
- curtain cord
- clothesline, attached to wall
- telephone wire

D. By STRANGULATION

A. Child places head in between two **permanent** objects that are spaced such that the space between them is smaller than the width of the child's head, so that the child cannot easily remove his/her head without maneuvering the position of the head

Examples:

- Child places head between staircase banister posts
- Child puts head in area where table leg support creates an area that could trap head/neck causing strangulation
- Child puts his/her head through slats on crib or playpen

II. BURNS Code: (Br)

A. FIRE/HOT LIQUID

1. Touching or grasping any object that may result in a burn due to heat.

Examples of Dangers:

- grasping a lit cigarette butt
- touching a hot stove
- touching fireplace screen or inside of fireplace when fire is lit
- climbing on fireplace hearth on all fours when fire is lit
- grasping a plugged-in iron (even if not turned on)
- touching electrical heater
- touching or grasping a hot mug of liquid
- turning on the hot water tap
- touching an unlit stove or toaster.
- grasping the hot water tap

B. ELECTRICAL SHOCK

1. Touching or grasping any object that may result in electric shock or resulting burn

Examples of Dangers:

- grasping plugged-in electrical cord
- putting metal object in electrical outlet
- grasping a plugged in object (exclude large appliances)

III. DROWNING Code: (D)

A. Entering any room alone in which there is standing water more than 2 inches deep by 1 foot square that is accessible to the child either directly or by climbing

Examples of Dangers:

- touching container of above dimensions with water in it (e.g., toilet, dishpan on floor, pail of water, and bathtub.

IV. FALLS Code: (F)

A. climbing, standing, or kneeling on any object at or higher than the child's waist level, child's feet must be off the ground. **Note:** When the child is sitting with buttocks flat on object or is lying prone, don't score unless the object is smaller than the child's buttocks.

Examples of Dangers:

- coffee table
- stool
- rocking chair
- couch
- high chair without the front on
- couch
- sitting on a rocking horse unattended above waist level

B. Climbing stairs or standing at top of stairs

Score if the parent is more than two steps below the child or two feet from child at top.

V. POISONING Code: (P)

A. Grasping any containers (either filled or empty) that stores solid or liquid poisons.

Examples of Dangers:

- medicine, pills, tube, gelled or liquid inhaler
- beauty products
- baby products (e.g., shampoo, lotion, powder)
- soaps, household detergents, cleaners (exclude bars of soap)
- deodorizers or toilet additives
- pastes polishes, waxes, paint, felt tipped pens, art supplies, stains preservatives, solvents and thinners
- glues, cohesives, adhesives
- plants (see separate list of poisonous plants)
- herbicides, fertilizers, and plant food
- petroleum products and flammable products
- insecticides, insect repellents, rodenticides animal poisons
- dirt from planter
- if the child's hand enters a cupboard, drawer, or container with a poison
- if a child touches pot with poisonous plant.

VI. LACERATION OR WOUNDS Code : LW

A. Grasping any object with a sharp or pointed end.

Examples of Dangers:

- scissors
- knife
- pen or sharpened pencil
- pointed stick
- if the child's hand enters a drawer, cupboard, or container with a sharp or pointed object in it.
- playing roughly with a pet

Exclude:

- blunted child scissors
- tinker toy
- long thin stick with rounded end (e.g., kitchen wooden spoon)
- unsharpened pencil.

B. Grasping any glass or ceramic object

Examples of Dangers:

- baby food jars
- drinking glass
- if the child's hand enters a cupboard, drawer, or container with a glass object in it.

C. Pounding a heavy object on glass

Examples of Dangers:

- pounding rock or heavy object on a glass table

Exclude:

- hitting glass with open hand

D. Grasping any type of firearm either loaded or unloaded

Example of Dangers:

- gun
- rifle
- caps
- bullets
- if the child's hand enters a cupboard, drawer, or containers with firearms in it.

VII. **BLOWS** Code: (B1)

A. Pulling on any object that is heavy and that is above the child's head level

Examples of Dangers:

- pulling a table cloth with heavy object on top of cloth
- pulling a large purse
- pulling a lamp cord
- pulling on table cloth without any hazards on top of it

Appendix C

Maternal Behaviors: Operational Definitions

Maternal behaviors are recorded only as they apply directly to the child. Verbalizations to self or other adults or children are not recorded.

I. Maternal Supervisory behaviors related to a child's involvement with a hazard.

A. Verbal/Gesture: vocalizations or nonverbal gestures directly related to hazardous behaviors

1. Reprimands/Command related to defined hazard Code: H-War

Anticipatory directives and specific statements related to a defined hazard that are directed to the child when the child is moving toward (within 1 foot) of a hazard.

Note: In order to be coded as such mother must be monitoring and child must be moving toward (and within 1 foot) of a hazard.

Examples:

- Don't touch that
- Put that down
- Stay away from the stove
- Get down
- Don't pick up the cat by its' neck

B. **Physical Behaviors:** Movements directed toward a child or hazardous object to prevent or stop contact with the hazard.

1. Partial removal from defined hazard Code: H-PR:

Mother touches a child's body or part of body (e.g., hand or arm) and moves body/part 1 foot (or less) away from hazard.

Examples:

- Mother removes child's hand from breakable object
- Mother sets child in seated position, from standing position on chair.

2. Total removal from defined hazard Code: H-TR

Mother guides or picks up child and moves child more than 1 foot away from hazard.

Examples:

- Mother takes child by arm and pulls child to her
- Mother picks up child removing child from defined hazard and carries child more than 1 foot away from hazard.

3. Removal of defined hazard Code: H-RH

Mother makes hazard inaccessible to child by moving object out of reach or thwarting access by a physical barrier.

Examples:

- Putting a hazardous object on a top cabinet shelf
- Moving a pot of hot liquid from a front stove burner to a rear burner
- closing bathroom door
- setting up a stair gate

4. Mother Follow Code: MF

Code this when the mother follows the child into another room.

Examples: The child may leave the room that they are both in and go into the kitchen unattended. Code this behavior as so as mother gets up to pursue the child.

5. Time-out Code: TO

If mother places a child in time out for a behavioral problem then code as time-out. If the mother initiates a time out in order to protect the child from a danger then use the appropriate code related to mother's behavior in face of hazardous situation.

II. Maternal behavior related to the child without involvement of a hazard

A. Physical Behavior

1. Affection Code: P-Af

Any pats, hugs, kisses, given to the child. Exclude physical aggression. Do not record if child touches mother and mother does not reciprocate.

2. Aggression Code: P-Ag

Hitting, spanking, or shaking the child.

B. Verbal: Do not score any verbal interaction that is not directed in some way to the child

1. Mand Code: VMn

A mand is any statement that is specific and direct in getting a child to do a specific behavior.

a. **Direct and specific.** The command is clear in letting the child know what it is the mother wants he or she to do. The mother tells the child very clearly the behaviors that she wants him or her to do. **Example:** "You need to put your toys on the shelf, please." **Instead of saying,** "Pick up your room."

b. **Eye contact.** In order for you to code this as a mand the mother should make some attempt to make eye contact with the child. **Do not** code as a mand if the mother shouts her request from across the room- you would code as a poor command.

c. **Tone of voice.** To code as a mand a mother should deliver her request in a respectful and loving tone of voice. Being firm, but gentle. Do not code as a mand if the mother shouts or yells at a child-code as a poor command.

d. **Giving the child choices.** A mand may include giving the child choices. **For example,** a mother may say, "Do you want milk or juice with breakfast?" **Instead of saying,** "What do you want to drink?"

e. **One mand at a time** A mand should only include one direction at a time.

2. Poor Command Code: VPC

A poor command is any kind of statement that does not give the child a clear understanding of what it is the mother wants the child to do physically. The child usually does not have the opportunity to respond to mother because the command is unclear or because the mother intervenes before the child can respond

a. **Chain commands** (Pick up your toys, brush your teeth, and go to bed)

b. **Vague commands** (Be careful, Be nice, Just be good for a while longer, Calm down, Act like a big boy please)

c. **Question commands** (Would you like to pick up your toys?) There may be times

when the mother give her child a choice but it should be obvious that she is purposefully doing this. For example she may say, "Would you like the red cup or the blue to drink your milk?" This would be coded as a **verbal mand** and not a poor command.

d. **Commands followed by rationale or other verbalizations** (e.g., "Please pick up your toys.") Grandma is coming over tonight, and this floor is a mess.")

3. Criticism Code: VCr

Any statement about the child or his/her behavior that indicates disapproval or a negative evaluation. **Example:** "That's not right"

"It doesn't go there"

"Don't be stupid"

4. Praise Code: VP

Any statement referring to the child's behavior, or his/her previous or future behavior which is positive or shows approval.

Examples:

"I like the way you're sitting still"

"Thank-you for bringing it to me"

"That looks nice"

"Good girl!"

5. Question Code: Q

Any statements that reflect a rhetorical questions that the mother asks of her child.

Examples: "What's that?"

"What are you doing?"

6. Description Code: VD

Comments that describe what the child is doing or what is happening to the toys with which s/he is playing, the child's location, his/her appearance or state. **NB:** Also, use this code when the mother repeats what the child says.

Examples:

-Your looking at the box

-You like those cars

-You have on your new shoes

-Mother may also repeat what the child is saying

7. Warnings Code: War

Any "if ... then" statements in which the consequent event is aversive and is to be administered by the mother is considered to be a warning.

Examples: "If you don't stop fussing, you'll have to go to your room."

"If you don't do as you're told, you'll have to sit in the corner."

3. + - N/A

4. An electrical switch is defined as a device for turning on and off electrical currents. A plate is defined as the area surrounding the electrical switch. The plate must come in contact with wall surface and if the plate can be moved 1/2 or more from wall surface it is scored as a hazard. Only score switches that are visible and accessible.

The shaded area designates plate.

If all electrical switches have plates correctly installed the home scores a + .

If my electrical switches have plates missing or if the plates do not come in contact with the wall surface the home scores a - . Write frequency of hazard on data sheet.

4. + - N/A

5. A back plate is defined as the covering placed on the entire backside of a television set by the manufacturer. A television set is considered in operation if it is plugged into an electrical outlet.

If all television sets in operation have back plates installed the home scores a + .

If my television sets in operation have back plates missing the home scores a - . Write frequency of hazard on data sheet.

If none present the home scores a N/A.

5. + - N/A

6. A damaged cord is defined as a cord that is cracked or frayed and/or shows exposed wires. Cords that have been wrapped with electrical tape and show no exposed wires are considered safe. There should be no missing parts on the plug of any cord. Exclude stereo speaker cords and cable TV wires.

If cords of all appliances that are used in home are not cracked, frayed, showing exposed wires, are repaired correctly with electrical tape, and plugs are not missing parts the home scores a + .

If cords of any appliances that are used in home are cracked, frayed, showing exposed wires or plugs are missing parts the home scores a - . Write frequency of hazard on data sheet.

6. + - N/A

SUFFOCATION BY INGESTED OBJECT HAZARDS

7. Answer this question only if there is an infant in the home whose mode of travel is crawling. **Note:** If a small object has any of the following dimensions it is not considered an ingestible object.

If all three axes are smaller than 3/8 inch (e.g., a BB pellet) then the object is scored as a small object.

If two axes are smaller than 3/8 inch and a third axis is larger than 1 1/4 inches (e.g., a pencil) then the object is not scored as a small object.

If two axes are larger than 1 1/4 inches and a third axis is any size (e.g., tennis ball or U.S. half dollar coin) then

the object is not scored as a small object.

If an object does not fit into one of these three categories then it is scored as a small object that may result in obstruction.

* An axis is defined as a main line of direction, motion, or extension of an object.

If there are no small objects on the floors and no small objects that can be reached by the child climbing on accessible furniture, in all rooms, the home scores a + .

If there are small objects on the floors or small objects that can be reached through accessible furniture in any rooms the home scores a - . Write frequency of hazard on data sheet.

7. + - N/A

SUFFOCATION BY MECHANICAL OBJECT HAZARDS

8. Cord is defined as a string or small rope consisting of several strands woven or twisted together or an item that resembles string or rope but made out of some other material (e.g., plastic and electrical cords). Only score if crib is used as a sleeping area.

If the mattress or seating area of the crib or playpen is placed out of hands reach from any cords the home scores a +.

If the same items mentioned above are within hands reach of the mattress or seating area of the crib or playpen, the home scores a - . Write frequency of hazard on data sheet.

If none of these items are present, the home scores a N/A.

8. + - N/A

9. If all plastic bags and thin plastic materials (except for garbage bags in waste containers, cellophanes, plastic bags with items inside, and food wraps kept in original containers) are inaccessible the home scores a + .

If plastic bags (except for the items mentioned above) or thin plastic materials are accessible the home scores a - . Write frequency of hazard on data sheet.

If there are none present in the home or bags have items in them the home scores a N/A.

9. + - N/A

FIREARM HAZARDS

10. If all firearms or guns are inaccessible the home scores a + .

If my firearms or guns are accessible the home scores a - . Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 10. + - N/A

POISONING BY SOLID OR LIQUID HAZARDS

11. Child-proof cap is defined as having some set of instructions that specify more than a simple counter clockwise turn of the cap written on cap or bottle. Pill container is defined as bottle or box in which pills, capsules, or tablets are stored. This would include pills, tablets, or medicines (e.g., suppositories) that are wrapped in paper, foil, or plastic. It would include throat lozenges.

If all pill containers are either inaccessible or do have child-proof caps the home scores a + .

If my pill containers are accessible and do not have child-proof caps the home scores a - . Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 11. + - N/A

12. A tube of medicine is defined as a small collapsible cylinder of metal or plastic sealed at one end and having capped opening at the other end from which medicine may be squeezed. This excludes toothpaste and beauty items in tubes,

If all tubes of medicine are inaccessible the home scores a

If my tubes of medicine are accessible the home scores a -. Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 12. + - N/A

13. An inhaler is defined as a cylinder shaped device usually made of plastic used as an apparatus to inhale medicinal vapors. Only include inhalers that would not be scored as bottle of liquid medicine.

If all inhalers are inaccessible the home scores a +

If my inhalers are accessible the home scores a - . Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 13. + - N/A

14. A bottle of liquid medicine is defined as a container with medicinal fluid inside. This would include droppers, eye drops, sprays, and aerosols (e.g., mouthwash, Bactine spray, hydrogen peroxide, or rubbing alcohol). *Child-proof cap: See definition in #11

If all bottles of liquid medicine are either inaccessible or have child-proof caps the home scores a + .

If my bottles of liquid medicine are accessible and do not have child-proof caps the home scores a - . Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 14. + - N/A

15. A jar of gelled medicine is defined as a broad molded container usually cylindrical and made of glass or plastic not containing pills or liquids. This question would include items like Vicks-Vapor Rub and petroleum jelly. Petroleum jelly would be scored during this question rather than the question pending to petroleum products.

If all jars of medicine are inaccessible or have child-proof caps the home scores a

If my jars of medicine are accessible and do not have child-proof caps the home scores a -. Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 15. + - N/A

16. This question accounts for beauty items such as: fingernail polish remover, cologne, perfume, sachet, toilet water, deodorant, eye make-up, hair bleach, hair dye, hair neutralizer, hair rinse, hair set, hair spray, hair straightener, hair tint, hair tonic, face make-up, permanent wave solution, astringent, lotions, bath oil, cosmetic creams, shaving lotion, skin creams, suntan preparations, lipstick, shampoo, bath powder, bath salts, bleach creams, cosmetics, cuticle cream, cuticle remover, depilatories, shaving powder, feminine deodorants, insecticide towlettes, chap sticks, contact lens preparation, baby products (shampoos, lotions, and powders), and bubble bath. This includes beauty items that are medicated and excludes toothpaste and tooth powders.

If all beauty items are inaccessible the home scores a +

If my beauty items are accessible the home scores a -. Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 16. + - N/A

17. This question determines accessibility of soaps, household detergents, and cleaners.

Some examples of items that would be scored in this category are:

powders	degreasers
sprays	rug shampoos and cleaners liquids bleaches
aerosols	fabric softener sheets
fabric treatment agents	softeners
tablets used for cleaning	shoe preparations
soap pads (e.g., Brillo)	cleaners for automobiles
containing soap/cleanser	jewelry cleaner

NOTE: Bars of soap are excluded from this question.

If all soaps, household detergents, and cleaners are inaccessible the home scores a

If my soaps, household detergents, and cleaners are accessible the home scores a -. Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 17. + - N/A

18. This question determines accessibility of deodorizers and toilet additives (e.g., solid and spray room deodorizers, car, diaper pail, and wardrobe deodorizers). This includes solid deodorizers in toilet bowl which are considered accessible but not deodorizers in toilet tank.

If all deodorizers and toilet additives are inaccessible the home scores a + .

If my deodorizers and toilet additives are accessible the home scores a - . Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 18. + - N/A

19. This question determines the accessibility of pastes, polishes, and waxes that are used on wood, floors, cars, and metals.

If all pastes, polishes, and waxes are inaccessible the home scores a + .

If my pastes, polishes, and waxes are accessible the home scores a - . Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 19. + - N/A

20. This question determines accessibility of paint, felt tip pens or magic markers, art supplies, oil paints, stains and preservatives. This includes wood treatment products except for polishes and waxes and includes lacquers, shellacs, varnishes, finishes, latex and enamel paints. * If any of these items are found to be accessible in the home score it as unsafe (even if it appears that containers are closed tightly).

If all paints, oil paints, stains, preservatives, and wood treatment products are inaccessible the home scores a + .

If my paints, oil paints, stains, preservatives, and wood treatment products are accessible the home scores a - . Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 20. + - N/A

21. This question determines accessibility of solvents and thinners such as furniture, metal, paint strippers, antifreeze, windshield washers, record and head cleaners, "Liquid Paper", and alcohol based dry cleaning fluid.

If all solvents and thinners are inaccessible the home scores a + .

If my solvents and thinners are accessible the home scores a - . Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 21. + - N/A

22. This question determines accessibility of glues, cohesives, and adhesives except for tapes and glues or pastes labeled non-toxic. Some examples of items scored in this category are: Super Glue, auto seal, glass seal, patching plaster, caulking, carpet adhesive, and rubber cement.

If all glues and adhesives are inaccessible the home scores a + .

If my glues and adhesives are accessible the home scores a - . Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 22. + - N/A

23. If all poisonous household plants are inaccessible the home scores a + .

If my poisonous household plants are accessible the home scores a - . Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 23. + - N/A

24. This question determines the accessibility of herbicides, fertilizers, and plant foods.

If all herbicides, fertilizers, and plant foods are inaccessible the home scores a + .

If my herbicides, fertilizers, or plant foods are accessible the home scores a - .
Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 24. + - N/A

25. This question determines the accessibility of petroleum products and flammable products such as gasoline, kerosene, lighter and charcoal fluids, and lubricants.

If all petroleum and flammable products are inaccessible the home scores a + .

If my petroleum or flammable products are accessible the home scores a - .
Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 25. + - N/A

26. This question determines the accessibility of insecticides, insect repellents, rodenticides, or other animal poisons. Some examples of items scored in this category are ant and roach traps, flea dips, shampoos and collars, mothballs, and Off.

If all insecticides, rodenticides, etc. are inaccessible the home scores a +

If my insecticides, rodenticides, etc. are accessible the home scores a - .
Write frequency of hazard on data sheet.

If there are none present the home scores a N/A. 26. + - N/A

HOME SAFETY OBSERVATIONS

27.	Smoke detectors present	27.	+	-	N/A
28.	Fire extinguisher	28.	+	-	N/A
29.	Locks on accessible cabinets	29.	+	-	N/A
30.	Listing of local emergency numbers	30.	+	-	N/A
31.	Ipecac in home	31.	+	-	N/A
32.	Outlet covers	32.	+	-	N/A

33. Gates or rail/guard on stairs (inside and out) 33. + - N/A

Appendix E

KNOWLEDGE OF CHILD DEVELOPMENT

Please read each item and select the correct item from the choices provided.

1. At birth, infants are able to:

- a. reach for objects in sight
- b. hold their head and chin up
- c. move their head from side to side
- d. see and hear

2. Most babies begin sitting up with some support by:

- a. 3 months
- b. 6 months
- c. 9 months
- d. 12 months

3. Most infants can walk alone by:

- a. 2 months
- b. 9 months
- c. 13 months
- d. 24 months

4. Not until 4 or 5 months are children able to:

- a. reach for and hold objects
- b. hold up their head and chin
- c. tell one color from another
- d. b and c

5. A newborn baby would be most likely to:

- a. hold your finger if you placed it in the palm of its hand
- b. give you a smile if you held him/her
- c. sleep through the night
- d. eat and sleep at different times each day

6. It is at this age that a child will be the most frightened when an adult stranger picks it up:

- a. birth to 4 months
- b. 6-12 months
- c. 24-36 months
- d. 18-24 months

7. If a three month old were to see its favorite toy as it was covered with a cloth, the baby would probably:

- a. start crying because its toy "was gone"
- b. lose interest in the toy and crawl off to play with something new
- c. lift the cloth and pick up its toy
- d. become interested in something else

8. A baby will usually say its first words such as 'ma-ma' between the ages of:

- a. 2-4 month
- b. 8-12 months
- c. 16-24 months
- d. none of the above

9. Newborns can:

- a. taste
- b. feel themselves being touched
- c. smell strong odors
- d. all of the above

10. Most 2-year-olds:

- a. speak in 2-3 word sentences
- b. speak in 6-8 word sentences
- c. can count to 20 and recite the alphabet
- d. none of the above

11. By the time a child is 10-months-old she is usually able to:

- a. sit up by herself
- b. roll over
- c. crawl
- d. all of the above

12. At 4 months most baby's speech is mostly:

- a. babbling (repetition of sounds like "ma-ma-ma" or "bi-bi-bi" or "da-da-da")
- b. repeating of other people's sounds
- c. one word sentences
- d. none of the above

13. You are visiting a friend who has a baby, and as you look down at the baby in the crib, she extends her hands toward you and you pick her up. The baby is at least how old?

- a. 2 weeks
- b. one month
- c. three months
- d. six months

14. Which of the following events occurs first?

- a. looking at objects for a long time
- b. touching objects
- c. putting two blocks on top of one another
- d. pulling up to stand

15. Newborns can see clearly:

- a. any moving object
- b. any brightly colored object
- c. any object more than fifteen inches away
- d. an object held ten inches away

16. An infants smiling, cooing, and grasping of the mother are most likely:

- a. related to hunger
- b. an expression of love
- c. a natural instinct
- d. called detachment behavior

17. An infant who no one touches for a long period of time is likely to:

- a. have problem in growing and in life
- b. not be affected by it
- c. never learn how to talk
- d. become emotional for a while, then get used to not being touched

18. The main reason that play is important for children is because:

- a. it gives them a chance to try out new ways of relating to other people
- b. it gives them a chance to exercise
- c. they learn better by playing than they would in a class
- d. it allows them to see the ways their actions influence others

19. Which of the following best describes the stages a child goes through in learning how to talk?

- a. babbling, cooing, crying, speaking
- b. crying, cooing, babbling, speaking
- c. cooing, babbling, crying, speaking
- d. crying, babbling, cooing, speaking

20. Children should be expected to verbally express themselves before the age of one year:

- | | | | | |
|-------------------|-------|-----------|----------|----------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly
Agree | Agree | Uncertain | Disagree | Strongly
Disagree |

21. Parents should expect their children who are under three years to start taking care of themselves.

- | | | | | |
|-------------------|-------|-----------|----------|----------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly
Agree | Agree | Uncertain | Disagree | Strongly
Disagree |

22. Parents should expect their children to feed themselves by twelve months.

- | | | | | |
|-------------------|-------|-----------|----------|----------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly
Agree | Agree | Uncertain | Disagree | Strongly
Disagree |

23. Parents should expect their children to grow physically at about the same rate as other children.

- | | | | | |
|-------------------|-------|-----------|----------|----------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly
Agree | Agree | Uncertain | Disagree | Strongly
Disagree |

24. Children should be expected at an early age to feed, bathe, and clothe themselves.

- | | | | | |
|-------------------|-------|-----------|----------|----------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly
Agree | Agree | Uncertain | Disagree | Strongly
Disagree |

25. Children five months of age should know what their parents want them to do.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

KNOWLEDGE OF CHILD DEVELOPMENT (continued)

26.	Usually a 2-year-old can sit and play quietly alone in a room for several hours	Agree	Disagree
27.	A 3 to 4-year-old can be expected to behave and not cry when mother is upset	Agree	Disagree
28.	A 1-year-old usually can feed him or herself.	Agree	Disagree
29.	A 3-year-old child usually knows when his mom or dad is upset and that he should stay out of the way at these times.	Agree	Disagree
30.	A 2-year-old child can be expected to toilet train his or herself with little help from parents.	Agree	Disagree
31.	When a 2-year-old bites his or her mother, It's all right for the mother to bite the child back to teach the child that biting mother isn't allowed.	Agree	Disagree
32.	Even a 3-month-old would miss a brother or sister if they were separated.	Agree	Disagree
33.	A 2-year-old can sometimes take a bath without the parent being in the room.	Agree	Disagree
34.	Generally, it's a good idea to physically punish (slapping their hand, etc) a 2-year-old for touching a stereo.	Agree	Disagree
35.	A 2 to 3-year-old boy can be expected to "act like a little man" that is, not cry when his mother leaves home to go shopping.	Agree	Disagree
36.	Even small infants have mean tempers and disobey when mad.	Agree	Disagree
37.	A 1-year-old can usually feed him or herself without spilling food.	Agree	Disagree
38.	A parent can expect a young child (3 or 4) to know enough to behave in a supermarket so that the parent won't look foolish in front of others.	Agree	Disagree
39.	A 2-year-old can be expected to go to his room and get dressed when told.	Agree	Disagree

Appendix F

PARENTING STYLE QUESTIONNAIRE

Please read each item and select the correct item from the choices provided.

1. Parents will spoil their children by picking them up and comforting them when they cry.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

2. It's good for a parent to set a 4-year-old on the toilet for an hour after the child messed up his pants.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

3. Young children who feel secure often grow up expecting too much.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

4. I believe too much affection and tenderness can harm or weaken a child.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

5. Parents who pay attention to their children's feelings and moods often spoil their children.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

6. There is nothing wrong in punishing a nine-month-old child for crying too much.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

7. Children will often grow up to be more independent, if their parents don't always give them what they need.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

8. Children should not be allowed to question their parents' decision.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

9. Parents who encourage communication with their children only end up listening to complaints.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

10. Children should be taught to control their feelings at all times.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

11. Children will quit crying faster if they are ignored.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

12. It's usually a good idea to physically punish a 6-year-old with a belt for acting out on the school bus because the child will learn how to behave next time.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

13. Children who are given too much love by their parents will grow up to be stubborn and spoiled.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

14. Children should be encouraged to express their own preferences.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

15. A young child who is hugged and kissed often will grow up to be a "wimp" who runs to his/her mom all the time.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

16. When a 4-year-old rudely grabs something that belongs to his or her mother, it is probably a good lesson for the child if the mother bends back the child's thumb.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

17. Parents should teach their children right from wrong by sometimes using physical punishment.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

18. If an infant or young child sucked his thumb a lot and kept doing this even when told not to, it would be good to spank him once to teach him to stop.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

19. Children learn good behavior through the use of physical punishment.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

20. It's ok to leave a 3-year-old, who is soundly sleeping in a bed, alone in the house or apartment while the parent walks a friend to the coner bus stop.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

21. Children develop good, strong characters through very strict discipline.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

22. Parents should slap their child when s/he has done something wrong.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

23. Children should always be spanked when they misbehave.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

24. Parents have a responsibility to spank their child when s/he misbehaves.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

25. Children should always "pay the price" for misbehaving.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

26. Children deserve more discipline than they get.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

27. Children are more likely to learn appropriate behavior when they are spanked for misbehaving.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

28. Children should be forced to respect parental authority.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

Appendix G

PARENT ATTITUDES QUESTIONNAIRE

Please read each item and select the correct item from the choices provided.

1. Having kids and taking care of them is most important thing a woman can do.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

2. Young children should try to make their mom feel better when she is feeling sad or depressed.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

3. I think having a baby will be one of the main things that makes my life a good life.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

4. It is wrong to expect kids to take care of their parents and to make them feel better.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

5. I would like to have a lot of kids in my house.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

6. Young children should hug their mom when she is sad.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

7. It is good that kids aren't as important to people as they used to be.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

8. A good child will make both of his/her parents feel better after the parents have been fighting

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

9. Being a parent's one of the most important things a woman or man can do.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

10. Young children should know how to make their parents feel better when they come home tired after a long day at work.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

11. I would feel like there was something missing from my life if I couldn't have a baby.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

12. Young children should not have to make their parents happy.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

13. Being a parent is an important job but it sometimes gets in the way of things you want to do.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

14. Young children should try to make their parent's life happier.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

15. Being a mother teaches you some of the most important lessons you should learn.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

16. Young children shouldn't have to make their father feel better when he is upset

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

17. I am really, really looking forward to being a mother.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

18. I think that having a baby and taking care of him/her will be one of the things that make me happiest in life.

1	2	3	4	5
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

Appendix H

MATERNAL EFFICACY QUESTIONNAIRE

Directions: We want to ask you some questions about yourself and your baby. We are trying to get a general idea of how you usually handle different situations with your baby. We realize that no way is always effective or always ineffective. We all do better in some situations than other. So we would like to have you think about some situations that all mothers encounter.

1. When your baby is upset, fussy or crying, how good are you at soothing him or her?

1	2	3	4
not good at all	not good enough	good enough	very good

2. How good are you at understanding what your baby wants or needs? For example, do you know when your baby needs to be changed or wants to be fed?

1	2	3	4
not good at all	not good enough	good enough	very good

3. How good are you at making you baby understand what you want him/her to do? For example, if you want your baby to eat dinner or play quietly, how good are you at making him or her do that?

1	2	3	4
not good at all	not good enough	good enough	very good

4. How good are you at getting your baby to pay attention to you? For example, when you want your baby to look at you, how good are you at making him or her do it?

1	2	3	4
not good at all	not good enough	good enough	very good

5. How good are you at getting your baby to have fun with you. For example, how good are you at getting your baby to smile and laugh with you?

1	2	3	4
not good at all	not good enough	good enough	very good

6. How good are you at knowing what activities your baby will enjoy? For example, how good are you at knowing what games and toys your baby will like to play with?

1	2	3	4
not good at all	not good enough	good enough	very good

7. How good are you at keeping your baby occupied when you need to do housework? For example, how good are you at finding things for the baby to do when you need to do the dishes?

1	2	3	4
not good at all	not good enough	good enough	very good

8. How good do you feel you are feeding, changing, and bathing your baby?

1	2	3	4
not good at all	not good enough	good enough	very good

9. How good are you at getting you baby to show off for visitors? For example, how good are you at making you baby smile or laugh for people who visit?

1	2	3	4
not good at all	not good enough	good enough	very good

10. How good are you at remaining calm during an emergency situation with your baby. For example, your baby accidently cut or burned him or her self. How good are you at remaining calm and collected enough to take some kind of action?

1	2	3	4
not good at all	not good enough	good enough	very good

11. How good are you at protecting your baby from dangerous objects in your home? For example, keeping your infant away from poisonous, objects he/she could choke on, hot stoves, or fireplaces, etc. How good are you at protecting your infant?

1	2	3	4
not good at all	not good enough	good enough	very good

12. How good are you at providing the resources needed to adequately protect your baby from unintentional harm. For example, purchasing a care seat, safety helmets, locks for your cabinets, etc. How good are you at providing resources?

1	2	3	4
not good at all	not good enough	good enough	very good

13. How good are you at knowing what to do if your baby gets physically hurt. For example, if your baby cuts him or herself with a knife or a broken piece of glass. How good are you at knowing what to do?

1	2	3	4
not good at all	not good enough	good enough	very good

14. How good are you at deciding what is safe and unsafe for your baby to do?

1	2	3	4
not good at all	not good enough	good enough	very good

15. How good are you at knowing how much supervision your baby needs?

1	2	3	4
not good at all	not good enough	good enough	very good

Appendix J

Demographic Information

Name: _____ Age _____

Address: _____

Birth date: _____ Grade in school or last grade completed _____

Ethnic Origin:
____ African-American
____ caucasian
____ hispanic
____ native-american
____ other, specify: _____

Religion:
____ Catholic
____ Protestant
____ Jewish
____ other, specify: _____

Do you currently have a job? _____ Yes _____ No If yes, occupation? _____

Who do you currently live with? _____ parents _____ boyfriend _____ relative _____ other, specify: _____

Do you have medical insurance? _____ Yes _____ No

If yes, specify: private _____ Medicaid _____ HMO _____ other, specify: _____

Do you receive any other kind of government assistance? _____ Yes _____ No

If yes, specify: _____

Have you received any prenatal care? _____ Yes _____ No

If yes, how often? _____

From whom: _____ private practice _____ health department _____ other, specify: _____

Please list all other persons who are currently living in the household

Name	Relationship	Age
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Parent Information

Your Mother's Education level (check highest level) Your Father's Education level (check highest level)

< 7th grade

Junior High (7th to 8th grade)

some high school

high school graduate

some college or specialized training

college graduate

graduate school

< 7th grade

Junior High (7th to 8th grade)

some high school

high school graduate

some college or specialized training

college graduate

graduate school

Mother's occupation if any?: _____

Father's occupation if any?: _____

Has your mother ever been divorced? Yes No

Has your father ever been divorced? Yes No

Do you have any brothers or sisters? Yes No

If yes, How many? _____

Appendix K

Study 2 Baseline and Treatment Session Protocol

I. Goals for the Baseline Session #1

Introductions
Build Rapport
Overview of the Project
Subjects Responsibilities
Collect Baseline Data
2 10-minute Video Samples

A. *Introductions*: Each member of the treatment team should introduce themselves stating that you are graduate or undergraduate student at Virginia Tech.

B. *Build Rapport*: First visit is a time for the therapist and her assistant to establish rapport with the mother and baby. You will have some information to gather from the mother but more importantly you want to establish a good working relationship from the start. Some questions that can facilitate rapport may focus simply on learning the child's name? How old the child is? Ask how things have been going so far adjusting to having a new baby? You may also want to ask what sort expectations the mother may have of what we are going to do? This is a good lead in to giving mom an overview of the study.

C. *Overview of Project*: The mother will already have filled out a consent form but go over with the highlights with them to make sure that they know what is involved in the study. **Note**: You do not have to go over each of these sections in detail just skim through them and make sure the mother understands that part of this is for her to receive treatment and the other part is for us to collect data so we know that the treatment is effective.

D. *Subjects Responsibilities*: You want to engage the client as a partner in this information gathering and treatment implementation. Make sure to let her know that the key for us being able to help her will depend on two keys points:

1. The ability for the treatment team to meet with you consistently on a weekly basis.
 - You can make this clear by letting the mom know that part of her role will be to be home on scheduled appointment days.
 - Let her know that if she has to cancel the appointment she should try to call at least one day in advance. Also, tell her that if you do miss a day during the week it may be necessary to try to make up that day later in that week. Work hard to find a time that is going to be good for you and the mother to meet on a regular basis.
 - Try to pick a day that all members of the treatment team and the mom can meet on a regular basis.
2. Your willingness to try some of the things that we are going to teach you.
 - Tell mom that there may be some things that we ask her to do that seem strange or difficult at first. But reassure her that with lots of practice and help from us that she will eventually be able to master the techniques that we show her.

E. *Collecting Baseline Data*: Tell mom that you need to collect some background and personal history information from her.

-Read the following questionnaires to her.

1. Demographic Information
2. Maternal Efficacy Questionnaire
3. Home Situations Checklist
4. Parenting Stress Index

F. 2 10-minute Video Samples

1. Tell mom that every week you will video tape her and her child for 20 minutes. Let her know that at first it may seem uncomfortable and a little weird but after we do it a couple times she probably will not even notice that we are videotaping.

2. **Mother Distracted Condition-** Mother reading magazine

Therapist repeat this statement each time you videotape:

"I would like for you to have your child play with some of his toys while you read some magazines. Let your child play like you normally would. However, I want you to watch and intervene with (child's name) whenever you feel it is necessary. Try to act naturally. My assistant and I won't stop (child's name) from doing anything. It's up to you to pay attention to what (child's name) is getting into."

3. **Mother/Child Play Condition**

Therapist repeat this statement each time you videotape:

"Now I want you to get down on the floor and play with your child. Play with your child like you normally would as if we were not here. Intervene with your child whenever you feel it is necessary."

G. Wrap-up

1. Thank the mom very much for allowing you to come over.
2. Make sure to set a time for the next meeting.
3. Remember to give the mom her care package. Tell her that she will get a care package after each session.

Therapist say:

"Before we start treatment we want to make sure that we get a good view of (child's name)'s behavior. In order to do this we need to meet weekly for the next couple of weeks. After that we will begin the treatment."

II. Goals for Baseline Session #2

- Continue to build rapport
- Administer HAPI
- Administer Parenting/Development questionnaires
- Collect two 10 minute video

- A. Continue to build rapport with mom and baby.
- B. Administer the rest of the questionnaires that we did not get a chance to complete in the last session.

Questionnaires to be administered (Read to the mother):

1. Knowledge About Infants Child Development
2. Parenting Attitudes Questionnaire
3. Parenting Style Expectations Questionnaire

C. Administer HAPI

Therapist say to mom:

"In order to be able to help you protect your child better from dangers in the house we need to first know what those danger are. To do this we are going to go through a list of items on our checklist as we walk through your house. You are welcome to come along with us. We would like to check the bathroom that you would normally use with (child's name), the kitchen, and the main room that we will do the filming in. Is that ok with you?"

Note: Before beginning the observation ask them mom if she will help you to measure her child. Have the mom hold the infant while you take the measurements. Let the mom set the pace of how she wants to do this.

D. Tips while doing the HAPI:

1. Keep a neutral face as you walk through the house. Avoid making any facial reactions as you open various cabinets.
2. If mom asks what you are marking on your list tell her that she will have chance to go over all the items that we mark later when treatment begins.
3. As you proceed with checking the various rooms in the house make sure to ask mom if it is ok for you to open specific cabinets. We will do this as a double check so that we do not embarrass mom.
4. Mark on the HAPI when the mom does not let you open a cabinet.

E. 2 10-minute Video Samples

1. Mother Distracted Condition- Mother reading magazine

Therapist repeat this statement each time you videotape:

"I would like for you to have your child play with some of his toys while you read some magazines. Let your child play like you normally would. However, I want you to watch and intervene with (child's name) whenever you feel it is necessary. Try to act naturally. My assistant and I won't stop (child's name) from doing anything. It's up to you to pay attention to what (child's name) is getting into."

2. Mother/Child Play Condition

Therapist repeat this statement each time you videotape:

"Now I want you to get down on the floor and play with your child. Play with your child like you normally would as if we were not here. Intervene with your child whenever you feel it is necessary."

F. Wrap-up

1. End with thanking the mom very much.
- Set up a time for the next appointment.
- Make sure to give the mom her care package.
- Let mom know that the next session will only involve the 20 minute videotaping.

III. Baseline Session 3

- A. You may want to start off this session by asking how things are going (make some small talk, show interest

in mom and her situation) You can also let mom know that we will be starting the treatment soon.

B. 2 10-minute Video Samples

1. Mother Distracted Condition- Mother reading magazine

Therapist repeat this statement each time you videotape:

"I would like for you to have your child play with some of his toys while you read some magazines. Let your child play like you normally would. However, I want you to watch and intervene with (child's name) whenever you feel it is necessary. Try to act naturally. My assistant and I won't stop (child's name) from doing anything. It's up to you to pay attention to what (child's name) is getting into."

2. Mother/Child Play Condition

Therapist repeat this statement each time you videotape:

"Now I want you to get down on the floor and play with your child. Play with your child like you normally would as if we were not here. Intervene with your child whenever you feel it is necessary."

C. Thank mom and give her the care package

IV. Baseline Session 4

A. Again, start of the session with touching base on how mom is doing. Let her know that the treatment will be starting the next session.

B. 2 10-minute Video Samples

1. Mother Distracted Condition- Mother reading magazine

Therapist repeat this statement each time you videotape:

"I would like for you to have your child play with some of his toys while you read some magazines. Let your child play like you normally would. However, I want you to watch and intervene with (child's name) whenever you feel it is necessary. Try to act naturally. My assistant and I won't stop (child's name) from doing anything. It's up to you to pay attention to what (child's name) is getting into."

2. Mother/Child Play Condition

Therapist repeat this statement each time you videotape:

"Now I want you to get down on the floor and play with your child. Play with your child like you normally would as if we were not here. Intervene with your child whenever you feel it is necessary."

C. Thank mom and give her the care package.

D. Let her know that the next session we will begin the treatment, so our session will actually last a bit longer from 1 1/2 to 2 hours.

Study 2 Intervention Session Protocol

I. Home and Child Safety Intervention Session 1

A. Framingham Survey

Therapist say:

“Today you are going to learn about different hazards your child may encounter and what you can do to make your child safe. What we go over today will help you to better prepare your home so that your child can play without encountering a large number of dangers. To begin with we are going to ask you to fill out a survey on child safety. This survey will help us figure out what areas you need the most help with. After you finish the survey I will then go over safety facts that seem most relevant to you. After we finish giving you some safety information we will then go around your house together and I will point out potentially dangerous areas that need to be made safe. We will discuss together how this will be done.”

Handout Give the mother the Framingham Safety Survey both the *First Year of Life* and *From 1-4 years old* (Part 1 and 2).

Therapist say:

“Some of the questions may not seem very relevant to your circumstances right now. However, answer the question based on how you responded in the past or how you plan to respond in the future.”

B. After the mother finishes the *First Year of Life Survey* scan the second sheet of this questionnaire for "at risk responses."

1. "At risk responses" are all responses that have an X appearing on the white of the (second) page of the survey.
2. Make a check next to the question number and go back to that question when the mother is finished.
3. In order to give further education of an "at risk responses" use the *TIPP Counseling Guidelines*. Keep in mind that these guidelines were designed to be administered by a pediatrician so some of the advice that you may give may vary a little. For example for question #18 on the *From 1 to 4 Years Survey* you would not be able to prescribe Ipecac but you could encourage the mom to talk with her pediatrician about getting some and then on how to properly use it once she has it.
4. For each "at risk response" there is a guideline that you can read to the mom to help her to understand the importance of a particular danger. You can add to guideline by personalizing it for the mom. If the mom is having a hard time with a particular danger help her to come up with a solution that will work for her situation.
5. Before moving on to a new guideline make sure the mother understands what you have already discussed.

C. *TIPP Safety Slips* (The small sized handouts)-- As you give the mom feedback based on her "at risk responses" you will notice that the *TIPP Guidelines* will recommend a few of the *TIPP Safety Slips*. Below is a list of the *TIPP Safety Slip* handouts that you will be giving to the mother. Give the mom the handouts even though she may answer the survey questions correctly. Briefly go over each handout with the mom.

Therapist say:

“Often when you encounter emergency situations in your home the best thing that helps to make the situation less stressful is having some knowledge of the danger and some predetermined solutions. Consequently, we are going to give you some useful tools that will be helpful in dealing with specific kinds of emergency situations like what do in case of a fire or if your baby is choking on something.”

TIPP Safety Slips

1. *Choking Preventions and First Aid for Infants and Children.*

Spend some time talking about common choking dangers and prevention methods. If the mother seems interested you may also want to walk her through the First Aid section of the pamphlet. Keep in mind you are not certified to teach CPR so don't give your mother a false sense of security. Tell her if she wants to learn more about giving her baby CPR then she should contact her pediatrician for more information on taking a course in CPR.

2. *Protect Your Home Against Fires... Planning Saves Lives.*

Ask the mother if she has worked out a fire escape plan?

If not help her to figure out the best route of escape when in the bedroom. Also, have her come up with a place that everybody can meet at once out of the house.

3. *Protect Your Child...Prevent Poisoning*

Have the mother come up with phone numbers for:

- a. Pediatrician or doctor for the baby
- b. Poison Control-Blue Ridge Poison Center 1-800-451-1428
- c. Local Hospital-
- d. All other emergencies-911

She can put these numbers on the "Sitter Messages" magnet that we will give her to put on her refrigerator.

4. *Home Water Hazards for Young Children*

Just go over some of the dangers about water in and outside the house.

D. *TIPP Safety Sheets*-- The final item that you will give to the mother are three *TIPP Safety Sheets* ranging in ages from birth to 2 years old. Tell the mom that she can read these for her own benefit. However, I want you to go over the sheet in some detail that is closest in age to the child that you are seeing. Most likely this will be the yellow sheet ages 1 to 2 years. Some of the information on this sheet is somewhat repetitive of what is found on the slips and what you already read as part of your feedback to her answers. However, it will be good to remind the mother again of the different types of dangers her child could potentially encounter.

E. The final part of today's session will be going over the results of the HAPI with the mother. I will have already gone over the HAPI and given you an individualized report of areas of concern for the mother to address. Walk back to the hazardous situation in the house and explain to the mother why this can be a potential hazard.

1. Problem solve with the mother on ways that she can remedy the hazard. For example, if she has left some electrical appliances plugged in close to the sink stress the danger of doing this and ask her to unplug and put away the appliance.

2. I will provide safety locks for cabinets, fresh batteries for smoke alarms, and a fire extinguisher for the kitchen. Everything else the mother will have to come up with on her own.

F. 20-minute Video

1. Mother Distracted Condition (10 minutes)

Therapist Say:

“I want you to have your child play like he/she normally does while you are looking at these magazines. However, I want you to also pay attention to see if your child attempts to approach or touch something dangerous. After the material went over today you have a good idea of what is dangerous for your child. I want you to keep your child away from these hazards that we discussed by warning or removing him/her or the hazard.”

2. Mother/Child Play Condition (10 minutes)

Therapist Say:

“Now I want you to get down on the floor and spend some time playing with your child. Remember to keep your child away from hazards in the room. Do this by warning, and/or removing your child or the hazard.”

G. Behaviors to look for:

1. Increase in hazard warning.
2. Increase in removing the child and the hazard.

H. Wrap-Up

Handout Give mom *Tuning-In* handout.

Therapist say:

*“Next week we will work with you on being with your child. To help you get in some practice before next week I want you to take some time to watch and observe your child (see **Tuning-in handout for details**) and then I want you to write down what you were feeling and thinking of. This is called tuning in to your child.”*

I. Give the mom her care package.

TUNING IN #1

Take about 2 minutes to "Tune In" to the positive feelings you have for your child. Here are some examples of some things you can look for this week. You can use one of these examples or "Tune In" using a different experience. Please write your feelings about your 3 "Tuning In" experiences below. If you use a different experience, make sure to also write down what your experience was!

Watch your child as s/he is sleeping.

Look at your child as s/he laughs at something

Watch your child and s/he explores something new (like a new toy) or discovers a new skill (walking, new word, etc.).

Stop everything you're doing and just open yourself up to the positive feelings you have for your child as you watch her/him. Write down your feelings here:

1. _____

2. _____

3. _____

II. Positive Parenting Intervention Session 2

A. Review with the mom to see how things went last week. Ask the mom if she was able to make the changes to her house/apartment to make it safer.

Therapist say:

"Last week we talked about a number of hazards your child may encounter during his/her exploration of his/her environment. We also discussed how you can make your home safer for your child. Part of being a responsible mother is keeping a close eye on your young child so that they do not get into hazards. Keep in mind that your child's job when growing up is to explore and learn from his and her environment. It is up to you to make sure that what he/she explores is safe. Your young child will not be able to tell the difference between something safe and something dangerous."

B. Answer any questions that the mom may have about the child safety education session.

C. Tell the mom that before we start working to change a child's behavior, we have to build or strengthen the relationship between the parent and child.

Therapist say:

"The tools we will be talking about today are not tools to change your child's behavior but rather tools to get your child more ready to be changed. We are going to be discussing how to build a more positive relationship with your child by learning how to just be with and talk to your child. First of all, let's say you want to plant some seeds in a garden. Before you can plant them, what do you have to do? Prepare the soil, right? Why do you need to prepare the soil? So the seeds have the best chance to grow, right? You have to work it with your hands, turn it with a shovel or till it so that the things that you plant there will grow strong and healthy. Now, think of your child as that garden. Before you plant anything new in the garden you have to prepare your child like you prepared the soil, right? The tools we will talk about today are tools that help you prepare your child so that the behaviors you want (like playing nice, hugging, listening to you, etc.) will grow strong and healthy in your child."

Therapist say:

*"In order to prepare your child to be changed a parent needs to be a positive parent. A positive parent does not have to punish their children as much because they know how to prevent a lot of child misbehavior by giving them lots of positive attention for the good behaviors they are doing. Positive parenting is based on the idea that **YOUR ATTENTION** is the most powerful tool you have for controlling your child's behavior. Because your baby loves and needs you, he wants your attention more than anything. Be giving him your positive attention when he's doing things you like, you teach him to do those things more often. For example, if you praise him for bringing you his shoes, he's more likely to bring you his shoes again. Of course, if you give him your attention when he's doing something you don't like, he'll learn to try that more often, too. For example, think about this scene in the grocery store--a toddler is fussing and carrying on for candy. His mother says "no" and the child begins to throw a real fit, screaming and kicking. After a few seconds of this, the mother says "OK OK, just quit carrying on!" and she hands the child the candy."*

Ask: What behavior do you think this mother rewarded?

In future sessions we will talk about different strategies you can use with your child when they are

misbehaving and you need to get them under control. For now we are going to focus on increasing positive interactions between you and your child.

Outline Give the mom the Session #2 *Being With Children* outline.

Therapist say:

“Today we are going to teach you some tools to be a more positive parent. Some of these tools may be things you use already. However, the way you will learn the tools today is a more effective way than parents usually have of building that strong relationship with their child. The tools you will learn today, Tailgating and Catch the Child Being Good describe new, but familiar ways to spend time with your child doing something your child likes to do. First I want to talk about some general things you can do to make the time you spend with your child easier and more positive.”

Handout Give the mom the *Skills For Being With Children* handout.

Therapist say:

“I want you to look at the points on this handout. All the points are things you can do to help the positive, good behaviors grow in your child.”

D. Questions about handout

Ask:

1. What are some of things on here that you already do with your child?
Encourage the mom to write down or check off things she already does with her child on the *Skills For Being With Children* handout.
2. Now, what are some things that you don't do now, but think that they would help make time with your child more positive?
Again, have the mom check off the responses.
3. Which ones don't make sense or look unfamiliar to you?
Model examples for the mom of unfamiliar techniques.
4. Are there any things on this list that you really don't want to do? Try to find out why not?
5. Ask the mom if she has any questions about the points on the list.
6. Are there any points that are not on here that you think should be added?
Have the mother write down any additional ideas on her handout.

E. Tailgating

Therapist say:

“The first thing that you can do to get your child ready to mind is to increase the number of enjoyable things you do together. One thing that you can do that small children really love is called "Tailgating". Tailgating is spending time with your child watching and commenting on how they are playing- without directing or teaching.”

Ask **What do you think we mean by playing without directing?**

Why is this important?

In this kind of role play you just follow the child's lead, doing what the child is doing or following what the child is doing with words, like a sportscaster announcing a game. "You're racing the car across the floor. Oh wow, it's going up the side of the couch and over the cushions. Or you can imitate by making your car do what your child's car does. This sounds silly, it's so simple, but it makes your child feel really important and cared for to have you just saying what s/he is doing, or just doing the same thing as your child. We call it tailgating because it means physically or verbally following the child around. This is great time to just enjoy your child and give them a lot of attention as they are having fun doing something they like to do. Remember a child who is hungry for your attention is more likely to misbehave to get that attention.

Note: Describing what your child is doing is different from rewarding their good behavior. For this skill just focus on describing the child's behavior. We will talk about increasing your praise and rewards of your child, shortly.

***Handout* Give the mom the Essentials to Tailgating Handout**

F. Essentials to tailgating

1. You must be actively watching your child play so that you can describe what he or she is doing. Just glancing at your child as he/she plays will not be enough to actively tailgate.
2. When you are tailgating you should avoid questioning the child or giving him/her commands to do things. You are simply observing, verbally describing what you child is doing, and copying your child's behavior.
3. You should only use tailgating when the child is doing something that is appropriate. You don't want to describe to the child, "Now you are throwing your blocks at mommy." This is not a behavior that you want to give attention to unless you want to see it again.

Outline Have the mom write down on her outline some things she could say to her child while doing tailgating.

Practice Have the mom practice tailgating with her child. Have her sit down with her child and attend to her child by describing what he or she is doing as they play. You may need to coach the mom on how to do this. If she seems lost model this behavior for her and then have her do it. Encourage the mom while she is doing her practice. Offer suggestions but ultimately let her implement the behavior.

G. Catching the child being good

Therapist say:

"Another thing that you can do is to try to find things your child is already doing well or is doing that you like and tell the child how well he/she is doing. We call this "catching the child being good" and it's another thing that will help the relationship between you and your child become more positive and make all the tools you use more effective. I want you to actually look for situations in which your child does something you want him/her to do and then give him/her praise for doing it. You want to praise your child not only when they do something the ask you but also when they are doing something good own their without being asked to do it. For example, playing quietly while you are talking on the phone or asking for something in a nice manner."

Saying things like "I like the way you shared that with me."

"You are such a good helper putting the spoons and forks on the table."

Even if your child hardly does things you like you can find something to praise.

"I like the way you came through the door without slamming it."

***Handout* Give the mom the Essentials to Praising Handout**

H. Essentials to praising

1. Make your praises specific to what you liked about what your child was doing.

For example: Say, "I like the way you are playing with your toys right now," instead of "What a good boy you are being. " Both are good but the first one tells your child what it is about their behavior you are praising making it more likely that they will do it again.

2. Rewards should immediately follow desirable behaviors.

3. Rewards should be used consistently, especially when the child is first learning a desirable behavior, such as compliance to a parents commands.

4. Rewards should be sincere and reinforcing to a child.

For example: A 7-year-old child may not consider getting a big hug and a kiss from his mom while his peers are present as reinforcing. On the other hand, getting to play Nintendo would probably do the trick.

Therapist Demonstration With Child

Model for the mother "catching the child being good" with her child. Make sure you have a big smile on your face as you are praising the child. Obviously, you should wait for the child to do something that is worth praising before you praise him/her.

Practice

Have the mother try catching her child being good. Give the mother lots of reinforcement. If she does not do it correctly the first time find something good to say, but have her do it again. Have her practice it a few times before the end of this session. Always make sure to give her feedback on how she is doing.

Outline

Have the mother write on her outline what catching the child being good means to her.

I. Summary

Therapist say:

"Remember, any fun activity with your child helps build a relationship. Imaginative play and tailgating are especially effective. "Catching the child being good", that is, watching for and praising good behavior is another good strategy. "

Outline Have the mother write on her outline why we do "tailgating," and "catch the child being good."

J. Ask the mother if there are any questions about anything you have covered today.

K. Barriers

1. *"I feel really stupid playing like a 2 or 3 year old."* This is a skill that takes time to learn. It may feel kind of dumb at first, but as you get more practice and become good at it it will feel more natural.

2. *I do not have time to play with my child. I have a part-time job, I take care of the house and I have to raise my child. The time I spend with child needs to be time for teaching and serious things, not play.* This is a common mistake many moms make. They do not understand that the best way to teach children is thorough playing. They also do not understand that parent who constantly trying to lecture and give information thorough language is going to have children who turn off and do not learn from the mother. Children learn by doing, particularly by doing in play. They also learn from someone if that someone is in the habit of praising them and telling them that they learn quickly or are clever. A parent who regularly plays with her child establishes herself as a reinforce for that child and is delivering information in a way the child can take it in.

L. Collect your 20-minute observation.

1. Mother Distracted Condition (10 minutes)

"I want you to have your child play like he/she normally does while your are looking at these magazines. However, I want you to also pay attention to see if your child attempts to approach or touch something dangerous. Based on last week you should have a good idea of what is dangerous. I also want you to try to give your child lots of praise while they are playing. Try to give your child some positive attention as much as possible so that he/she will continue to play quietly."

2. Mother/Child Play Condition (10 minutes)

"Now I want you to get down on the floor and spend some time playing with your child. Let your child led in the play. I want you to use tailgating and praise a lot during the next 10 minutes. Remember describing what your child does is different from telling him or her what to do. Also, remember to keep your child away from dangers like you did last week. Do this by warning, and/or removing your child from the hazard or removing the hazard."

M. Behaviors to look for:

1. Maintain same levels of hazard warning and removing child from hazard and hazard removal when appropriate.
2. Increase child praise.
3. Increase child description

O. Wrap-Up

1. Explain to mom that her homework is to spend at least three times in the next week trying to use tailgating and praise with her child. Tell the mom to set aside at least 10 minutes where she is able to give the child her undivided attention. Encourage her to also use praise whenever she notices her child doing something that she likes. Tell her to focus only on the child's good behavior for the week. Have her make a list of good behaviors that she noticed throughout the week that she praised him or her for.
NB: Tell her you will call her to remind her to do this (Pick a day and time when you will call).

2. Give mom her care package.

SESSION #2 Positive Parenting - HANDOUT

Skills for Being with Children

There are certain things parents can do to make interactions with their children more comfortable and more positive. Here are some of these things.

1. **Smile at your child:** When your child is doing something good or something that you like, smile at him or her and make sure that he or she sees you smiling.
2. **Let your child be near you:** Allow your child to touch you, sit on your lap, or otherwise be physically near you so long as he or she is behaving appropriately.
3. **Touch your child:** Look for times to touch your child--sit your child down in your lap, put your arm around your child, and gently caress and kiss your child in a gentle and loving way. Your loving touch is a wonderful thing for your child to feel.
4. **Get on your child's level:** When possible, be at the same height as your child (kneel down to talk to your child, sit on the floor with your child).
5. **Give the same message to your child with your face, voice, and body language:** If you say to your child, "come over here and play" have a smile on your face, a positive tone in your voice, and gesture to your child to come closer to you.
6. **Ignore when you can:** Put behaviors that "you don't like and that don't hurt anyone or anything, into your "zone of ignoring". Just pretend they aren't there.
7. **Avoid scolding or lecturing.**
8. **Use specific words:** When possible, use specific words to compliment or talk about what your child is doing. ("I like the way you put the toys on the shelf." instead of "Good girl.")
9. **Be clear and specific when you want your child to do something:** Use a tone of voice your child can hear and understand and be specific about the behavior that you want.
10. **Use words your child can understand:** When you want your child to do something make sure you know your child can understand. This will make it easier for your child to cooperate with you.

SESSION #2 Essentials to Tailgating - HANDOUT

Essentials To Tailgating

1. You must be actively watching your child play so that you can describe what he or she is doing. Just glancing at your child as he/she plays will not be enough to actively tailgate.
2. When you are tailgating you should avoid questioning the child or giving him/her commands to do things. You are simply observing, verbally describing what your child is doing, and copying your child's behavior.
3. You should only use tailgating when the child is doing something that is appropriate. You don't want to describe to the child, "Now you are throwing your blocks at mommy." This is not a behavior that you want to give attention to unless you want to see it again.

SESSION #2 Essentials to Praise- HANDOUT

Essentials To Praising

1. Make your praises specific to what you liked about what your child was doing.

For example: Say, "I like the way you are playing with your toys right now," instead of "What a good boy you are being. " Both are good but the first one tells your child what it is about their behavior you are praising making it more likely that they will do it again.

2. Rewards should immediately follow desirable behaviors.
3. Rewards should be used consistently, especially when the child is first learning a desirable behavior, such as compliance to a parents commands.
4. Rewards should be sincere and reinforcing to a child.

For example: A 7-year-old child may not consider getting a big hug and a kiss from his mom while his peers are present as reinforcing. On the other hand, getting to play Nintendo would probably do the trick.

III. Mands Intervention Session 3

A. Go over mom's list of good behaviors that she praised. Ask the mom if she had a problems with trying to catch her child being good or tailgating. Identify where the mom had problems and attempt to help her work through the problems.

B. Review briefly what was covered last week.

Therapist say:

"Tailgating and catching your child being good are activities that you do with your child that will help make your relationship with your child stronger and more positive. Remember, this is like working the soil, tilling and turning it with a shovel, before you start to plant in your garden. This will make it easier for you to teach your child when you need to teach. S/he will want to keep earning your praise. Your child will also be less likely to misbehave and get into a dangerous situation if you are giving them a lot of positive attention.

A. Mand Skills -Tell the mom that today we will be discussing ways to make requests of children so that children will comply or cooperate. As a way to illustrate how directions can often be confusing for a child

Therapist say:

On your outline please write all of the things related to this idea.

At this point the mom should be pretty confused about your directions.

Therapist say:

"I didn't give you this request in a way you could do what I asked. Sometimes when we ask children to do something without knowing it, we ask so that it's not easy for them to understand what it is we want or that makes them not want to cooperate. Today we will talk about how to ask things in way that is easy for children to understand and makes it easier for them to cooperate with the request."

C. Tell the mom that there are some things that we can do when we give a child directions that will tend to increase the child's cooperation.

Therapist say:

*"I am going to talk to you today about using "mands". These are not **commands** or **demands**, but are stronger than requests. A mand is a loving but firm way to tell your child what s/he must do. "*

Outline Write down your own definition of a "mand" on your outline so you can remember it.

Handout Give the mom a copy of the *Mand Skills* handout, so that she can follow along as your discuss them.

Therapist say:

1. Move close to the child. Talking to your child from far away makes it easier for them to ignore you.
Ask, Why would it be important to get close to your child? Help the mom come up with some reasons why.
2. Get down on your child's level and make eye contact. When you talk face to face and look into your child's eyes it's easier for your child to listen to see what you want him to do.
Ask, Why do you think it's important to get on your child's level?
3. Say what you mean. Be clear in letting your child know what you want. Tell the child very clearly

the behaviors that you want him or her to do. **Example:** "You need to put your toys on the shelf, please." **Instead of saying,** "Pick up your room."

Ask, Why do you think it's important to be clear and specific?

4. Tell your child what you want her to do not what you don't want her to do. **For example:** "The baby is sleeping so please use a quiet voice in the house." **Instead of,** "Don't make so much noise or you'll wake the baby." **Ask, Why is this point so important?**

5. Give your mand in a respectful and loving tone of voice, being firm, but gentle, about what you expect is more effective than nagging and complaining, and your child will learn from your example. **For example,** "I want you to put your shoes in the closet now, please." **In a firm but loving voice, instead of using a mean or whining voice and saying,** "How many times do I have to tell your to put those shoes away. I am so sick of telling you the same things over and over again!"

6. Give the child choices whenever possible, but only if you are willing to honor the choice the child makes. **For example,** If you want your child to drink juice or milk with her meal, say, "Do you want milk or juice with breakfast?" **Instead of saying,** "What do you want to drink?" The problem with asking this type of question is that your child might respond that she wants soda or something else besides juice or milk. And if you really only want her to have milk, the choice might be, "Do you want your milk in the blue cup or the red cup?" **Instead of** "Do you want juice or milk?"

Ask, Why is it a good idea to give your child a choice when you can?

7. Only give your child one direction at a time. When parents string 2 or 3 directions together, children have a hard time remembering them and therefore it is more difficult for them to comply. **For example,** with an 18 month old, say, "Please go get your shoes" **Instead of saying,** "Please go get your shoes and bring them here and then put them on."

Ask, Think about child development and what children can do and tell me why this point is important to remember when you're asking your child to do something?

D. Ask the mom if she understands the seven points that you have just gone over. Answer any questions or concerns that she may have.

E. Tone of voice

Therapist say:

"The tone of voice you use when you tell your child to do something is very important. You want your child to know that you care about him, but that you are serious. When you use a whiny tone of voice, you're giving your child the message that he/she doesn't have to listen to what you have to say. But if you use a harsh, mean tone of voice, your child may get angry and resentful or even scared and will be less likely to cooperate."

F. Child's Perspective

Therapist say:

"An important aspect of giving your child good mands is to begin to be able to take your child's point of view or to look at the world through the child's eyes so that you know what it feels like to receive good mands versus bad commands."

G. Remembering your own childhood

Ask questions:

1. Can you remember a time when you made a major mistake as a child or did something that made your parents angry?
2. How did your mother and father react?
3. Did he or she get angry?
4. Did your mother or father help you to learn from your mistake?
5. How did your mother or father reaction make you feel?

Role Play

G. The therapist should role play a situation in which the mother plays the role of a child experiencing adult anger. The therapist should first show what it's like to lose control over herself when interacting with a child who is misbehaving. She should suddenly scream at the child, using a very loud voice:

"Drop that purse! Get away from it! Who said you could go through my things like that?"

Clearly be out of control and angry (Exaggerate your behavior to drive home the point). This will startle the mother and it has been found that this is useful in getting the mother in touch with her feelings. Then, the therapist and mother should repeat the scene but this time the therapist should show what it's like to give a mand to the child appropriately using a firm, somewhat loud voice, but not screaming or out of control.

Outline Have the mother compare and contrast the different scenarios. Get her reaction to the following questions.

Ask questions:

1. What did it feel like when the "parent" was firm?
2. Did it work to discipline the child?
3. How did it look and feel when the "parent" lost control and became angry? (Focus on the redness of the face, the quick breathing and other physical signs of anger.)
4. How would this look to a child?
5. Was it an effective discipline strategy in the short run?
6. How about in the long run?
7. What potential harm is there for the child?

H. Practicing mands

Demonstration

Therapist model for the mother a couple examples of making a request with a whiny tone of voice a harsh tone of voice, and a firm and gentle tone of voice, so that the mom can see the difference between the three different types.

Ask, the mom if she can identify the one that is the mand?

I. Rephrasing inappropriate commands to mands

Outline:

Have the mom look at her outline where the various commands are given and then have her rephrase them so that they are more like mands. Try to have her do most of the work but help her along if it looks like she is having trouble. Have her practice actually saying them out loud using the appropriate tone that was discussed above.

Therapist say:

"Tell the mom to make sure to pay attention to how she is saying things, in addition to what she is saying. (Note:

The rephrases given here should only be used if the mother cannot rephrase the examples on her own."

1. Do you want to clean up your own room now Maria?

Rephrased: Maria, it's time for you to put your toys away.

2. Don't run in the house, you'll break something.

Rephrased: You need to walk, walking will make sure nothing, especially you, gets hurt or broken.

3. What do you want for lunch?

Rephrased: Do you want a peanut butter sandwich or soup for lunch?

4. What are you wearing to school today?

Rephrased: Do you want to wear blue jeans or a jumper to school today?

5. I wish you would just mind me about your shoes!

Rephrased: Please put your shoes on as soon as I ask you to.

6. Joe, why don't you wear a jacket today, it's so cold.

Rephrased: Joe it's very cold out today, you need to put on a jacket before you go outside.

J. Role Play some examples of mand

Practice:

Have the mom identify a few things that she may want to have her child do. Have her figure out an appropriate mand for her request and then have her use it with her child. Coach the mom along before and after she gives the mand. Make suggestions on how she can adjust her tone or make her mand more clear.

K. Another part of making reasonable requests is to use the idea of giving children a verbal cue when you are going to make a request that requires a change in activity. Letting a child know that in 5 minutes it will be time to put the toys away helps the child prepare for the transition. Tell the mother that as adults we give ourselves mental hints or cues about what is coming up, "I need to get Joey ready for school in about 5 minutes or he'll miss the bus." But children do not have that advantage. When we give them time to prepare, they are much more willing to comply.

Outline Write on your outline some things that happen in your life nearly everyday that you could give cues for.

L. Tell the parents that as long as a request is reasonable, we do have to justify it for the child. Sometimes children will attempt to "get out" of doing a job by saying, "Well, I didn't make that mess." If the child is old enough to reason with (6 to 8 years) help her to understand that the whole family has to pitch in and sometimes we have to do jobs that we don't want to do or clean up messes that we didn't create. If the child is younger (3 to 5 years) offer the child an extra incentive for going beyond what is his "job" **For example**, say "I know you didn't make this whole mess and when we're finished cleaning it up, I'll give you a glass of juice."

M. After an explanation the parent should not keep trying to justify the request. You are the mother and you do not have to justify to your child why she or he should do something or not. Next week will be talking about time-out which is something you can use with your child when he/she refuses to comply or is acting badly.

N. Tell the mother about giving choices to children as a way to help children learn independence. Explain that by letting children make some decisions about the things that affect them, the parent is encouraging the

development of autonomy or independence.

O. Control as part of normal development

Therapist say:

“Remember that, as children develop, they are becoming their own independent people, and as they get older, they have normal developmental need to have some control over what happens to them. This sometimes becomes a struggle between the parents who is trying to hold on tight to the control she has, and the child who is fighting for control in order to have some say in what happens to her. Of course parents still have to maintain control over most of what their children do for safety reasons and to protect them. Remind the mother that her most important job is to protect her child. There are many things, however, that the parent can let the child have some control over, such as the things we've already discussed today. Choices of certain things to eat, choices of appropriate clothes to wear. etc. When we give children control over some parts of their life, they don't have to demand it in other parts. “

For example, if you let your child decide whether to have Cheerios or Corn Flakes for breakfast, she will be less likely to argue about whether or not to eat.

Ask, Besides eating, what are some other things in your everyday life that you could give your child choices about?

P. Next week we are going to learn how to use timeout as a way to handle a child refusal to comply with the mother's mands. Tell the mon that even though she may have learned time out before we are going to teach her new and more effective way to do this. Ask the mom to think about time-out if she knows what it is and if she has ever used it before. Was it effective for the mother.

Q. Barriers

1. If I let me child make all these choices he's going to think he;s the boss. Sometimes there just is no choice he has to do what I ask him to. That's absolutely correct. there are lots of things that are non-negotiable when you have to make the decision. But if he feels like he is the boss about some things, things that are OK for him to make decisions about then he won't need to be to the boss when it's a non-negotiable situation. Besides you control the choices.

2. You talked about getting on her level and being respectful. I;m the parent, she should respect me!That's right, parents do deserve the respect of their children. Children learn respect by example, so when you show her you respect her, you're helping her learn how to respect you. You will also get more of what your want from her.

R. 20 minute Video

1. Mother Distracted Condition (10 minutes)

“I want you to have your child play like he/she normally does while your are looking at these magazines. However, I want you to also pay attention to see if your child attempts to approach or touch something dangerous. Based on last week you should have a good idea of what is dangerous. I also want you to try to give your child lots of praise while they are playing. Try to give your child some positive attention as much as possible so that he/she will continue to play quietly. If you need your child to do something be clear and specific about what you want”.

2. Mother/Child Play Condition (10 minutes)

“Now I want you to get down on the floor and spend some time playing with your child. This week I want you to direct what your child does. Do this by giving him clear and concise mands with a firm

and loving voice. Remember to continue to describe what your child does and praise him or her whenever you can. Always praise your child after they obey your requests.”

S. Wrap-up

1. Encourage mom to use her new mand skills throughout the week. Have mom continue to set aside three times where she spends 10 minutes of interacting with her baby. Tell her to add try out her new mand skill during the 10 minutes. Remind her to praise her child after they comply with her mands.
2. Tell her next week we will teach her how to do deal with her child's noncompliance and dangerous behavior.
3. Give mom her care package.

Session #3 Mand Skills- OUTLINE

Mand Skills

1. A mand is:

2. Please rewrite each of these sentences so that is clear and understandable.

A. "Do you want to clean up your room."

Rewrite:

B. "Don't run in the house, you'll break something."

Rewrite:

C. "What do you want for lunch?"

Rewrite:

D. "What are you wearing to school today?"

Rewrite:

E. I wish you would just mind me about your shoes!

Rewrite:

F. "Joe, why don't you wear a jacket today, it's so cold."

Rewrite:

3. Write down some things that happen everyday that your could give cues about to let your child know they are coming up. (Hint mealtime, bedtime, or bathtime).

4. What are some things that happen nearly everyday that you could let your child have some choices about?

Session #3 Mand Skills- HANDOUT

SEVEN POINTS TO USE WHEN USING MANDS

(Asking children to do something)

- 1. Move close to the child.** Talking to children from far away makes it easier for them to ignore you.
- 2. Get down on your child's level and make eye contact.** When you talk face and look into children's eyes, it's easier for them to listen and to see what you want them to do.
- 3. Say what you mean.** Be clear in letting children know that you want. Remember how we have been talking about identifying the behavior that you want to change? Do that here. Tell children the behaviors that you want them to do. Say, "You need to put your toys on the shelf." Instead of saying, "Pick up your room."
- 4. Tell your children what you want them to do,** not what you don't want them to do. For instance, say "the baby is sleeping, so please use a quiet voice in the house. " Instead of saying, "Don't make so much noise or you'll wake the baby."
- 5. Use a respectful tone of voice.** Being firm, but pleasant, about what you expect is more effective than nagging and complaining, and your child will learn from your example. For instance, say " I want you to put your shoes in the closet now." instead of, "how many times do I have to tell you to put those shoes away. I'm sick of telling you the same things over and over again."
- 6. Give children choices whenever possible,** but only if you are willing to honor the choice they make. For example, if you want your child to drink juice or milk with her meal, say, "Do you want milk or juice with breakfast?" instead of saying, "What do you want to drink?" because your child might respond that she wants soda or something else besides juice or milk. And if you really only want her to have milk, the choice might be, "Do you want your milk in the blue cup or the red cup?" instead of "Do you want juice or milk?"
- 7. Only give your child one direction at a time.** When parents string 2 or 3 directions together, children have a hard time remembering them and therefore it is more difficult for them to comply. For instances, instead of saying, "Please go get your shoes and bring them here and then put them on.", say "Please go get your shoes." Then say, "O.K. now please put your shoes on."

IV. Time-Out Intervention Session 4

A. Go over how things went with including mands in with her praise and descriptions.

B. Review briefly what was covered last week.

Therapist say:

"Last week we went over how to give your child mands which are firm request telling your child exactly what you want them to do. This week we are going to talk about what to do when your child does not do what you ask."

C. Description of time-out

Therapist say:

"Time-out is a way to get your child to stop behaving in ways you don't like. When you use time-out, you remove your child from activities for a short time, right after your child has misbehaved. For older children you place your child in a chair or on a rug or towel for about 2-5 minutes. But, for a very young child you will need to place him or her in a playpen or highchair with a front. Time-out works well in decreasing problem behaviors such as temper tantrums, hitting, disobeying directions, engaging in dangerous behaviors, and throwing objects. If you do a good job in giving your child a lot of good positive attention you will not need to use Time-out as often. However, there are times when a child does something dangerous or disruptive where you need to give them somekind of consequence so they learn not to do it again."

Remember that the most powerful thing that you can do with your child is give them your attention. When you put a child in time-out you are purposefully denying them attention to make them know what they did was wrong without having to resort to yelling or hitting which harms your child's self-esteem. Time-out does not harm your child's self esteem it puts them in safe environment so that they can not continue with their dangerous or disruptive behavior.

Outline: On your outline answer why you think time out works

D. Using time-out with a young child

Therapist say:

"Initially, using time-out with your 1 year old will be for non-compliance, and serious disruptive and/or dangerous behaviors. However, you must be careful with the types of requests you make of your child. You may ask your child to do something that they are not developmentally capable of doing. You must only ask your child to do things you already know for sure her understands how to do."

Outline: Have the mom try to identify serious behaviors that would require a time out. Below are two examples of serious behaviors that may require a time out in a young child.

Examples:

Dangerous situation or behavior: If a child gets into a dangerous situation you want to remove the child from the situation or remove the potentially hazardous object. When doing this you want to stress to the child that this is dangerous by saying "No, touching the pencil." "Time-out.", in a firm voice and then proceed to place the child in a playpen or high-chair.

Misbehavior: If a child is misbehaving by having a tantrum, hitting or biting you or another child then

you want to put him or her in a time out. Only use a time-out when it seems that the child is really out of control and will not listen to your requests to stop whatever the disruptive behavior is. Again, tell the child, "No hitting." "Time-out."

E. Steps for Using Time-out with a 1 year old

Handout: Give the mother the *Time-out Guideline for 1-year-olds*

1. Before using time-out, decide where the time-out area will be. It should be well lit and free from all dangerous objects. In the case of a young child you should use the child's playpen or highchair if a playpen is unavailable.
2. When you first start to use time-out, you might find it helpful to pick one or two problems that you will use for time-out. Once your child learns that time-out is not fun, you can add to the list of problem behaviors you use it for.
3. Practicing time-out with a 1- year-old will probably be difficult to do because the child will not have that much language to understand you with. However, you can show by example. When the child does something that you have identified as deserving a time out you say to the child immediately "No, time-out" using a firm tone, pick up the child facing away from you, and place the child in a playpen or a highchair until he or she is quiet for 10 - 15 seconds.
4. It is very important that you give your child limited attention during the time it takes you to get him or her into the time-out spot. Consequently, it helps to carry the child facing away from you so that the child does not perceive this action as positive attention or affection.
5. Use time-out consistently. Your child should be placed in time-out each time the problem behaviors occur.
6. While your child is in time-out, do not talk to him her. Also, do not look at your child. Your son or daughter, for example, will learn that you will give him attention only after he has become calm and quiet and time-out is over.
7. During the first few times you use time-out, your child may throw a temper tantrum (for example, scream, cry, kick, or look for something to throw). Keep your child in time-out until they have sufficiently calmed down. Do not let your child out of time-out while they are still crying.
8. Following a time-out take the child from the high-chair or playpen and give them some toys to play with. Following a time-out period, you should quickly look for and praise a good behavior. Now is the time to reward your child for the kinds of behaviors you want the child to have. Remember to catch your child being good more often than you use time-out.

F. Ask the mom if she has any questions about implementing time-out. Help her problem solve where to have the time-out and what types of behaviors she should use for time-out. It may help at this point to identify behaviors that you have observed during baseline that seem somewhat chronic and problematic for the mother.

G. When your child gets older you will modify the way you give time-out. Instead of using a playpen or high-chair you will have the child sit in a chair or on mat or rug that you have already identified. You will also attempt to practice with your child beforehand what sort of behaviors will result in time-out. Finally, the length

of the time-out will be longer for an older child. Generally, a minute for every year of life. Otherwise the same principles that you learn for 1-year-olds will apply to older children. We will not go over the specifics of time-out for older children but we will give you a handout that you can refer back to when it is more relevant.

H. Ask the mom if she has any questions or concerns. Also ask her if she thinks that she will use this tool to manage her child.

I. Hazard scenario

1. Tell the mother that there are going to be many times when she will be preoccupied with something like making dinner or talking on the phone and will have a difficult time monitoring her child. During this time it may be difficult for her to give her child a lot of positive attention. Tell her that part of being a positive powerful parent is trying to anticipate solutions to different situations that will distract her from attending to her child.
2. Have the mom come up with a few situations that she feels she will be distracted and is unclear about what to do with her child.

J. Help the mom to implement all the positive parenting skills she has been taught to use during the distracted situation that she comes up with.

K. 20 minute Video

1. Mother Distracted Condition (10 minutes)

“I want you to have your child play like he/she normally does while your are looking at these magazines. I want you to try to use all the things that we have talked about during the past few weeks to help keep your child safe and out of trouble. Try to praise your child when you can, give them mands when you want them to do something and then follow up with a time out if he/she fails to follow your mand.”

2. Mother Child Interaction (10 minutes)

“Now I want you to get down on the floor and spend some time playing with your child. Again, I want you to follow what your child is doing by describing his behavior verbally and praising his good behavior. I also want you to give your child some mands. You now know what to do if your child does not follow your mand, if your child is disruptive or if he is being dangerous.”

L. Behaviors to look for:

1. Maintain same levels of hazard warning and removing child from hazard and hazard removal when appropriate.
2. Maintain praise and description.
3. Maintain mands and praise following mands.
4. Increase time out for non-compliance, disruptive behavior and dangerous behavior.

M. Wrap-up

1. Tell mom you back one more time next week to have her fill out some additional questionnaires and to receive her gift certificate e to her favorite restaurant.
2. Give the mom her care package.
3. If this is her last session tell the mom that you are very appreciate for all her time and patience throughout the whole project. Ask her if it would be OK if we contacted her in couple months and came out again to do a follow-up see how things are going.

Session #4 Time-Out- OUTLINE

PARENTING SKILLS-TIME-OUT

1. Why do you think time-out works?

2. Identify two serious behaviors that you think would deserve time-out.

Time-out Guidelines for 1-year olds

1. Before using time-out, decide where the time-out area will be. It should be well lit and free from all dangerous objects. In the case of a young child you should use the child's playpen or highchair if a playpen is unavailable.
2. When you first start to use time-out, you might find it helpful to pick one or two problems that you will use for time-out. Once your child learns that time-out is not fun, you can add to the list of problem behaviors you use it for.
3. Practicing time-out with a one year old will probably be difficult to do because the child will not have that much language to understand you with. However, you can show by example. When the child does something that you have identified as deserving a time out you say to the child immediately "No" using a firm tone, pick up the child facing away from you, and place the child in a playpen or a highchair until he or she is quiet for 5 to 10 seconds.
4. It is very important that you give your child limited attention during the time it takes your to get him or her into the time-out spot. Consequently, it helps to carry the child facing away from you so that the child does not perceive this action as positive attention or affection.
5. Use time-out consistently. Your child should be placed in time-out each time the problem behaviors occur.
6. While your child is in time-out, do not talk to him her. Also, do not look at your child. Your son or daughter, for example, will learn that you will give him attention only after he has become calm and quiet and time-out is over.
7. During the first few times you use time-out, your child may throw a temper tantrum (for example, scream, cry, kick, or look for something to throw). Keep your child in time-out until they have sufficiently calmed down. Do not let your child out of time-out while they are still crying.
8. Following a time-out take the child from the high-chair or playpen and give them some toys to play with. Following a time-out period, you should quickly look for and praise a good behavior. Now is the time to reward your child for the kinds of behaviors you want the child to have. Remember to catch your child being good more often than you use time-out.

Time-out Guidelines for Older Children

1. Before using time-out, decide where the time-out area will be. It should be well lit and free from all dangerous objects. It should be some place where your child cannot watch TV or play with toys. A good time-out area is an adult-sized chair in a hallway or a mat or rug in a corner of a room. You will also need a kitchen timer, a watch, or a clock so that you can keep track of the time-out period.
2. When you first start to use time-out, you might find it helpful to pick one or two problems that you will use for time-out. Once your child learns that time-out is not fun, you can add to the list of problem behaviors you use it for.
3. Before using time-out, you should explain the rules to your child once. At a time when your child is not misbehaving, explain where the time-out area will be, which problem behaviors time-out will be used for, and how long time-out will last. Practice using time-out with your child before using the procedure. While practicing, remind your child you are "pretending" this time.
4. Use time-out consistently. Your child should be placed in time-out each time the problem behaviors occur.
5. Following a problem behavior, tell your child what he or she did and send the child to time-out. For example, you might say, "You hit your brother. Go to time-out, please., Say this calmly and only once. Do not reason or give long explanations to your child. If your child does not go willingly, take your child to time-out, using as little force as needed. For example, hold the child gently by the hand or wrist and walk to the time-out area. Or, carry the child facing away from you (so that there is no confusion between a hug and a trip to time-out). To avoid giving your child a lot of attention while being put in time-out, do not argue with, threaten, or spank your child.
6. While your child is in time-out, do not talk to your child. Also, do not look at your child. Your son, for example, will learn that you will give him attention only after he has become calm and quiet and time-out is over.
7. During the first few times you use time-out, your child may throw a temper tantrum (for example, scream, cry, kick, or look for something to throw). Your child may also try to leave the time-out area before you have told him or her to do so. Do not give in and let your child leave time-out, no matter how much the child is carrying on. As long as your child remains seated, ignore the tantrum (for example, by turning away, by going to another room). If your daughter, for example, leaves the chair, immediately return her to the chair with no talking. You may have to do this several times. Your child will soon learn that you will always put her back in the chair, and she will stop getting out of the chair.
8. When the time-out period begins, use a timer, watch, or clock to time your child's quiet time. A good rule of thumb is one minute of quiet for each year of age, but never longer than 5 minutes of quiet. If your child is crying or throwing a tantrum, do not begin the timer--he or she is not calm and quiet. If you start the timer because your child is quiet but your child starts to cry or tantrum, wait until your child is quiet and reset the timer for a minute or two. Do not take your son or daughter out of time-out until the child has calmed down. Your child must remain seated and be quiet to get out of time-out.
9. What is quiet time? Generally it means that your child is not angry or mad. You must decide when your child is calm and quiet. Some children get perfectly still and quiet while in time-out. Other children find it hard to sit still and not talk. Fidgeting and "happy talk" should usually count as calm and quiet. If your son, for example, sings or talks softly to himself, that counts as quiet time.
10. When the time-out period is over, ask your child, "Are you ready to get up?" Your child must answer yes in

some way (or nod yes) before you say that the child may get up. Do not talk about why the child went into time-out, how the child behaved while in time-out, or how you want your child to behave in the future. If your child says no, answers in an angry tone of voice, or won't answer at all, start time-out over again by resetting the timer.

11. If your child was placed in time-out for not doing what you told him or her to do, give the child the choice of following your instruction or staying in time-out. Repeating the instruction helps teach your child you mean what you say and gives the child the chance to behave in a way that pleases you. If your child still does not obey the instruction, then place him or her in time-out again. Repeat the time-out procedure until your child follows your instruction.

12. Following a time-out period, you should quickly look for and praise a good behavior. Now is the time to reward your child for the kinds of behaviors you want the child to have. Remember to catch your child being good more often than you use time-out.

CURRICULUM VITA

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PERSONAL INFORMATION

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EDUCATION

Doctor of Philosophy in Clinical Psychology, April 1998

Virginia Polytechnic Institute and State University, Blacksburg, Virginia

Masters of Science, November 1994

Clinical Psychology

Virginia Polytechnic Institute and State University, Blacksburg, Virginia

Bachelor of Arts, May 1989

Major: Psychology Minor: Religious Studies

Catholic University of America, Washington, D.C

RESEARCH EXPERIENCE

11/94: **Masters Thesis:** *Predictors of a Young Woman's Pregnancy Decision.* Chair: Jack W. Finney, Ph.D.

9/95 **Preliminary Examination:** *Adolescent Parenting: Unique Characteristics and Effects on Childhood Injuries.* Chair: Jack W. Finney, Ph.D

4/98 **Dissertation:** *A Behavioral and Educational Treatment to Improve Adolescent Mothers Supervision and Home Safety Practices With Their Young Children.* Chair: Jack W. Finney, Ph.D

8/92 -5/96 **Research Assistant:** Department of Psychology Virginia Tech. Supervisor: Jack W. Finney, Ph.D.

- assisted primary professor in analysis of data.
- assisted other faculty and graduate students in data collection, administration of structured interviews and data analysis.

- 5/89 - 7/92** **Clinical Research Assistant:** National Institute of Mental Health, Child Psychiatry Branch, Bethesda, MD. Supervisor: Judith L. Rapoport, MD.
- assisted primary investigator in all phases of research projects on attention deficit hyperactivity disorder, conduct disorder, and Tourette Syndrome
 - contributed to study design and manuscript writing for each of these projects
 - performed statistical analysis on collected data
 - administered computerized attentional tasks and assisted during lumbar punctures and blood studies.
- 8/87 - 5/89** **Research Assistant:** Marriage and Family Study Group, Life Cycle Institute, Catholic University of America, Washington, DC. Supervisors: Cliff Notarius, Ph.D. and David Pellegrini, Ph.D.
- assisted experimenters with interviewing process of family and couple interactions
 - prepared and operated video and audio equipment for lab interactions and transcribed videotaped couple and family interactions

PROFESSIONAL EXPERIENCE

- 7/97 – Present** **Case Manager:** Pediatric Feeding Disorders Program, The Kennedy Krieger Institute, Baltimore, MD
- Administration of outpatient services
 - Case manage intensive pediatric feeding inpatients
 - Conduct behavior assessment and treatment for children with feeding difficulties
- 8/95 - 5/96** **Graduate Teaching Assistant:** Department of Psychology, Virginia Tech. Supervisor: Jack W. Finney, Ph.D.
- primary course instructor for an undergraduate course in Personality Psychology
- 8/94 - 5/95** **Graduate Teaching Assistant:** Department of Psychology, Virginia Tech. Supervisor: Robin Cooper, Ph.D.
- primary instructor for an undergraduate advanced developmental lab
 - guided students in designing and conducting developmental psychological research project, along with instructing students on how to write and APA style paper
- 8/92 - 5/93** **Graduate Psychology Assistant:** Department of Psychology, Virginia Tech. Supervisor: Jack W. Finney, Ph.D.
- assisted with administration of Psychological Service Center duties such as chart reviews, intake screening, administration of intake forms, and conducted first year graduate level interviewing skills workshop
- 8/92 - 5/93** **Graduate Teaching Assistant:** Department of Psychology, Virginia Tech. Coordinator: Michael Casey
- instructor of lab sessions of undergraduate Introductory Psychology course
 - facilitated class discussions of assigned readings aimed at supplementing material covered in class lectures.

CLINICAL EXPERIENCE

- 7/96 – present** **Predoctoral Internship in Behavioral Pediatrics and Developmental Disabilities:**
Department of Pediatrics, The Kennedy-Krieger Institute and Johns Hopkins University
School of Medicine, Baltimore MD.
Supervisors: Keith Slifer, Ph.D and Wayne Fisher, Ph.D.
- conducted psychological and behavioral evaluation and treatment of children age birth to 21 with a wide variety of handicapping conditions (i.e., medical, emotional, behavioral, learning) in a multidisciplinary setting.
 - consultation with the Pediatric Comprehensive Neurorehabilitation Unit, the Neurodevelopment Unit and other clinics throughout the hospital.
 - full caseload responsibilities for outpatients presenting with a variety of emotional/behavioral and pediatric concerns.
 - primary therapist inpatient responsibilities with patient exhibiting self-injury and severe aggression.
 - conducted a functional analysis of aggressive and self-injurious behavior so that an effective treatment to reduce these behavior can be found.
 - conducted a 6-week inservice for school staff members in the use of behavioral interventions
- 8/95 - 5/96** **Clinical Practicum:** Psychological Service Center and Child Study Center,
Virginia Tech. Supervisors: Dr. Jack W. Finney, Ph.D. and Robert S. Stephens,
Ph.D
- completed a 240 hour Clinical Practicum
 - training included assessment and treatment of one child client, one adult and one couples client; participation on weekly practicum team meetings and individual supervision.
 - assumed responsibility for supervisory role for second year graduate students
- 8/95 - 11/95** **Co-therapist for a Non-Clinical Panic Group:** Treatment study for a senior
graduate student's dissertation. Supervisor: Sarah Mattis
- completed 16 hours of group therapy
 - duties included leading and implementing either a cognitive behavioral or education based treatment for a group of non-clinical panic disorder subjects.
- 5/95 - 8/95** **Clinical Practicum:** Psychological Service Center and Child Study Center,
Virginia Tech. Supervisor: Thomas Ollendick, Ph.D.
- completed a 50 hour Clinical Practicum on a voluntary basis
 - training included three full child psychological evaluations, participation in weekly assessment team meetings.
- 1/95 - 5/95** **Clinical Practicum:** Psychological Service Center and Child Study Center,
Virginia Tech. Supervisors: George Clum, Ph.D. and Russle T. Jones, Ph.D.
- completed a 100 hour Clinical Practicum on a voluntary basis

- training included assessment and treatment of one child client and two marital cases, participation in weekly practicum team meetings and individual supervision

5/94 - 8/94 **Clinical Externship** - Department of Behavioral Psychology, Johns Hopkins University School of Medicine & The Kennedy-Krieger Institute, Baltimore, MD
Supervisor: Gina Richman, Ph.D. and Kelly Harrison, Ph.D.

- completed a 480 hour clinical externship in the Department of Behavioral Psychology, Child and Family Therapy Clinic
- maintained a caseload of 12 outpatients
- duties included evaluation of and treatment of child and family clientele, participation in research activities and training seminars, research protocol implementation, and weekly individual supervision.

8/93 - 5/94 **Clinical Practicum:** Psychological Service Center and Child Study Center, Virginia Tech. Supervisors: Richard Eisler, Ph.D. and Peggy Warren, Ph.D.

- completed a 480 hour Clinical Practicum
- training included assessment and treatment of five child clients, two marital couples, and one adult client, completion of three psychological evaluations, participation in weekly practicum team meetings and individual supervision

9/93 - 5/94 **School Counselor:** Montgomery County Public Schools, Blacksburg Middle School, Blacksburg, Virginia. Supervisor: Tom Ollendick, Ph.D.

- responsibilities included providing weekly individual counseling and group social skills training for emotionally disturbed students as specified on IEP's and attendance to bi-weekly group supervision meetings and monthly staff meetings.

8/92 - 4/93 **Clinical Practicum:** Psychological Service Center and Child Study Center, Virginia Tech. Supervisors: Jack W. Finney, Ph.D. and Robert S. Stephens, Ph.D.

- completed a 240 hour Clinical Practicum
- training included assessment and treatment of two child clients and participation in weekly practicum team meetings and individual supervision.

8/88 - 5/89 **Psychiatric Technician:** Redl House, Residential Treatment Program for emotional disturbed boys, Rockville, MD. Supervisor: Tom Holman, Ph.D.
Phone: (301) 258-8405

- Structured time and activities for six emotionally disturbed boys, ages 7-12; Employed Redl's "life-space interview technique" as a therapeutic tool, and restraint techniques; developed behavioral contracts and summary reports

PUBLICATIONS

Piazza, C. C., Fisher, W. W., Hanley, P. G., Reuter, J., & Gulotta, C. S. (*in press*). Escape as a reinforcer and an establishing operation in the treatment of multiply controlled destructive behavior. *Research in Developmental Disabilities*.

Finney, J. W., & Gulotta, C. S. (*in press*). Intervention models for mothers and children at risk for injuries. In J. W. Finkelstein & N. A. Krasnegor (Eds.), *The prevention of children's injuries*. New York: Garland Press.

Castellanos, F. X., Elia, J., Kruesi, M., Marsh, W. L., Gulotta, C. S., Metford, I., Potter, W., Ritchie, G., Hamburger, S. D., & Rapoport, J. L. (1996). Cerebrospinal fluid homovanillic acid predicts behavioral responses to stimulants in 45 boys with ADHD. *Neuropsychopharmacology*, *14*, 125-137.

Castellanos, X., Elia, J., Kruesi, M., Gulotta, C. S., Metford, I., Potter, W., Ritchie, G., & Rapoport, J. L. (1994). Cerebral spinal fluid monoamine metabolites in ADHD boys. *Psychiatric Research*, *52*, 305-316.

Elia, J., Gulotta, C. S., Rapoport, J. L., Rose, S., & Marin, G. (1994). Thyroid Function and attention-deficit Hyperactivity disorder. *Journal of Adolescent and Child Psychiatry*, *33*, 169-172.

Elia, J., Welsh, P., Gulotta, C. S., & Rapoport, J. L. (1993). Classroom academic performance: Improvement with both Methylphenidate and Dextroamphetamine in ADHD Boys. *British Journal of Child Psychology and Psychiatry*, *34*, 785-804.

PRESENTATIONS

Gulotta, C. S., Bradberry, K., & Finney, J. W. (1997, November). *A behavioral and educational treatment to improve adolescent mothers supervision and home safety practices with their young children*. Poster session presented at the 31th Annual AABT, Miami Beach, Florida.

Finney, J. W., Bonner, M. J., Gulotta, C. S., & Riley, A. W. (1995, November). *Psychosocial models for predicting health care use in schools and clinics*. Presented at the 29th Annual AABT, Washington, D.C.

Bonner, M. J., Finney, J. W., Grafton, S., Gulotta, C. S. (1995, April). *Psychosocial predictors of health care encounters and school functioning in elementary school children*. Poster session presented at the Fifth Florida Conference on Child Health Psychology, Gainesville, Florida

Gulotta, C. S. & Finney, J. W. (April, 1995). *Predictors of a young woman's pregnancy decision*. Poster session presented at the Fifth Florida Conference on Child Health Psychology, Gainesville, Florida

Finney, W. J., Gulotta, S. C., & Riley W. A. (1994, November). *Predicting children's health care use*. Poster session presented at the 28th annual meeting of AABT, San Diego.

Harrison, K. A., Richman, G. S., Gardner, A. J., Efron, L. A., Gulotta, C. S., Hayes, R., Henion, K. A., Vittemberga, G., & Zaldo, C. (1994, November). *A comparison of child-focused vs. family-focused treatment approaches for child noncompliance*. Poster session presented at the 28th annual meeting of AABT, San Diego.

Jaquess, D. L., Harrison K. A., Efron, L. A., Gardner, A. J., Gulotta, C. S., Henion, K. A., Soeken, E. L., & Richman, G. S. (1994, November). *Micro versus macro measures of family functioning*. Poster session presented at the 28th annual meeting of AABT, San Diego.

Castellanos X., Elia J., & Gulotta C. S. (September, 1992). Stimulant treatment of pediatric Tourette's and Attention-deficit disorder. *Proceedings from the Society for Research on Child and Adolescent Psychopharmacology*. Santa Fee, New Mexico.

Castellanos, X., Elia, J., Gulotta, C. S., & Rapoport, J. L. (May, 1992). Stimulant treatment of pediatric Tourette Syndrome and ADHD. *Proceedings of the 145th Annual Convention of the American Psychiatric Association*. Washington, DC.

Castellanos, X., Gulotta, C. S., & Rapoport, J. L. (May, 1992). Superior intellectual functioning and stimulant drug response in ADHD. Differential effects of stimulants in ADHD. *Proceedings of the 32nd Annual Convention of the New Clinical Drug Evaluation Unit Program*. Boca Raton, Florida.

Elia, J., Gulotta C. S., & Rapoport, J. L. (July, 1991). *Tourette/ADHD/OCD Triad Dextroamphetamine and Methylphenidate's effects*. Poster session from 3-year Branch Review. National Institute of Mental Health, Bethesda, Maryland.

HONORS

Dean's List, Catholic University of America, 1987-1989
Psi Chi, National Psychology Honor Society

PROFESSIONAL AFFILIATIONS

American Psychological Association (APA), Member
APA Division 12- Clinical Psychology
Section 1: Clinical Child Psychology
Association for Advancement of Behavior Therapy (AABT), Member
Society for Pediatric Psychology
Association for Behavior Analysis, Member

TECHNICAL RESEARCH SKILLS

Proficient use in a number of statistical and data management software including SAS, BMDP, SPSS, EPISTAT, Harvard Graphics, and Dbase, Lotus, Graph Writer, Excel.

REFERENCES

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