

RELATIONSHIP BETWEEN ADOLESCENT PARENTAL
CHILD ABUSE AND PARTICIPATION IN
A PREVENTION PROGRAM

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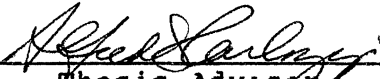
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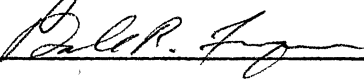
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CHAPTER I

INTRODUCTION

During the last decade, adolescent pregnancy and childbearing have been viewed as serious and persistent problems. This concern has increased despite the fact that teenage birthrates have been declining since the end of the 1950s; about 42 percent between 1955 and 1982 (U.S. Bureau of the Census, 1984) and 27 percent between 1970 and 1981 (Jones, Forrest, Goldman, Henshaw, Lincoln, Rosoff, Westoff, & Wulf, 1986). Recent data indicate that 4 in 10 of today's 14-year-olds will have at least one pregnancy during their teenage years, 2 in 10 will have at least one birth, and more than 1 in 7 will have one or more abortions (Alan Guttmacher Institute, 1981, 1987). In 1983, of the one million teen pregnancies, 600,000 resulted in live births (General Accounting Office, 1986). Thus, the adolescent age group represents a statistically greater percentage of the total pregnancies; the result has been an increase from approximately 16 percent in the early 1970s to approximately 21 percent of all births in the United States at this time (General Accounting Office, 1986).

The relatively high rates of adolescent pregnancy do not reflect a widespread desire among teenagers to start

families at early ages. In 1981, 79 percent of all pregnancies to women ages 15 to 19 occurred outside of marriage - 89 percent of pregnancies to 15 to 17-year-olds and 72 percent of those to 18 to 19-year-olds (Henshaw, 1986). Thus, although 1 in 10 women aged 15 to 19 were pregnant in 1981, fewer than 1 in 50 intended to conceive. Those adolescents who become mothers are more likely to remain unmarried and to keep their children rather than give them up for adoption (Dryfoos & Scholl, 1981). Therefore, the majority of teenage pregnancies are carried to term with the mother electing to raise the child by herself or in the home of the maternal grandparents (Simkins, 1984).

Teenage Pregnancy Treatment Issues

Teenage pregnancy and childbearing are associated with a number of adverse medical and psychosocial risks and consequences both for the young mother and her child. Pregnancy brings with it a number of biological risks, including such serious complications as toxemia, preeclampsia, and prolonged labor, all of which are more common among teenagers than among women who delay pregnancy and childbirth until their twenties (Alan Guttmacher Institute, 1981; Baldwin & Cain, 1980; Bolton & Laner, 1981; Dott & Fort, 1976; Granger, 1982; Miller & Field, 1984). Pregnant adolescents were found to be 15 percent more likely

to suffer from toxemia, 92 percent more likely to have anemia, and 23 percent more likely to suffer complications attendant upon a premature birth than were mothers who gave birth at age 20 to 24 (Alan Guttmacher Institute, 1981). The pregnant adolescent is at potentially high risk and should be carefully watched for several specific health problems including the use of alcohol, tobacco, and drugs; poor nutrition; pregnancy induced hypertension; the existence of or exposure to sexually transmitted diseases; the increased incidence of intrauterine fetal growth retardation; the increased incidence of cephalopelvic disproportion; and increased risk of abruptio placentae (Miller & Field, 1984). Furthermore, a teenager who conceives during the 4 years after the onset of menstruation is at even greater nutritional risk because her physical growth may not yet be completed (Miller & Field, 1984).

The maternal mortality rate is 40 percent higher for mothers younger than age 15 and 13 percent higher for women age 15 to 19 as compared with those women in their twenties (Alan Guttmacher Institute, 1981; Miller & Field, 1984). The increased mortality rates and the increased frequency of poor nutrition and anemia in teenagers seem to be statistically related to socioeconomic class. Even if teenage mothers receive adequate prenatal care and nutrition, an increased maternal health risk still exists.

Neonatal mortality rates are twice as high for infants born to women younger than 15 than for those born to women in their twenties (Menken, 1972), and is greater than that of infants born to mothers aged 40 or older - a high-risk age group (Alan Guttmacher Institute, 1981, 1987).

Perhaps the single, most problematic outcome of adolescent pregnancy is the tendency to end prematurely and to produce a low birth weight infant (Graham, 1981; Granger, 1982). It is estimated that more than one-fourth of the infants born to teenager mothers will be of low birth weight and premature, i.e., under 36 weeks of gestation. Recent data on low birth weight infants indicate that they suffer a higher incidence of neonatal-related complications, such as respiratory distress syndrome, hypoglycemia, jaundice, and other metabolic and neurological disorders (Bolton & Laner, 1981; Granger, 1982; Simkins, 1984).

Researchers have questioned whether the extent to which the health problems of the pregnant teenager are directly a function of biological maturity and age, or may be more specifically related to delayed, inadequate, or total lack of prenatal care (Dott & Fort, 1976; Graham, 1981; Menken, 1972; Miller & Field, 1984; Simkins, 1984). Approximately 50 percent of adolescents have no prenatal care during the first trimester of pregnancy, and 16 percent have none during the second trimester of pregnancy (Miller & Field,

1984). Teenagers age 15 to 17 have been shown to be twice as likely as women in their early twenties to go through the first six months of pregnancy without prenatal care, and nearly four times more likely not to get care at all or to delay it until the last trimester (Alan Guttmacher Institute, 1981). Drew (1977) found that, although there was no clear relationship between health problems, either congenital or acquired, and the age of the mother at birth, there was still a strong tendency for the children of younger mothers (14 to 16) to experience more health problems after birth than children born to older teenagers (19 to 20).

Although the adolescent mother and her infant are shown to be at significant medical and psychosocial risk, several studies have demonstrated favorable effects through comprehensive obstetric and pediatric care for the adolescent mother and the infant. In a recent, carefully controlled study (Sosa, Kennell, Klaus, Robertson, & Urrutia, 1980), women who labored alone were compared with randomly selected women who had an untrained supportive companion present with them throughout labor. The presence of a supportive companion in a hospital setting significantly reduced the length of labor from 19 to 9 hours, and strikingly decreased the incidence of perinatal problems such as meconium staining, fetal distress, and

Caesarean section. These observations were consistent with a study by McAnarney and her colleagues (McAnarney, Roghmann, Adams, Tatelbaum, Kash, Coulter, Plume, & Charney, 1978) which showed that teenage mothers who were provided continuous support during labor resulted in no more obstetric or neonatal complications than older mothers. Larson (1980) found that home visitation programs which were initiated during pregnancy and continued over the first 18 months of a child's life, in contrast to starting 6 weeks after the birth, resulted in significant differences in maternal behavior, fewer feeding problems, and fewer mother-infant interaction problems.

Correlational studies of pregnancy outcomes have implicated social and behavioral variables as having major effects on birthweight. Olds, Henderson, Tatelbaum, and Chamberlin (1986) randomly assigned primiparous women into experimental and control groups. The intervention included: home visitations to educate mothers about prenatal development and maternal health issues, linkages to community services, enhancement of informal support networks, and emphasis on the pregnant women's personal strengths. Although overall effects on birthweight were not found, a subset of 21 teenage mothers had infants with higher birthweights than did the control mothers. Subsequent research (McLaughlin, Altemeier, Sherrod, &

Stern, 1989) designed to test the effects of psychosocial support and comprehensive health care for low-income women during pregnancy and for two years after birth revealed similar results. The comprehensive intervention consisted of prenatal care provided by a multidisciplinary team of nurse-midwives, social workers, nutritionists, home visitors, and psychologists compared to routine prenatal care provided by obstetrical residents of a hospital. The study demonstrated favorable effects of comprehensive prenatal care and psychosocial support on birthweights of infants born to young and primiparous low-income women.

Studies have suggested that comprehensive obstetric services should focus on the current and future well-being of the adolescent and the infant as well as on the prevention of additional untimely pregnancies. McAnarney et al. (1978) compared young women in a comprehensive obstetric follow-up program with those in two noncomprehensive service settings in the same geographic area. They found that after 2 years, only 24 percent in the comprehensive program had again conceived as compared with 43 percent and 45 percent in the other two groups.

A 1979-1980 survey (Wallace, Weeks, & Medina, 1982) found that a number of special services were providing adolescents with prenatal care and help in schooling and employment. They tended, however, to be concentrated in

urban areas and to serve only extremely disadvantaged teenagers. These services were generally provided by public school systems, health departments, local governments, and voluntary agencies, and almost always subsidized by local, state, or federal government. Although 80 percent of cities of 100,000 or more population had some sort of special program for pregnant adolescents; many of these services were not designed specifically for teenagers (Wallace et al., 1982). Furthermore, services were seldom provided by a single organization or at one site, making it difficult for many adolescent mothers to move through the numerous systems to obtain the variety of comprehensive obstetric and postnatal care required. Furthermore, Furstenberg (1976, p. 208) noted that programs for teenage parents were crises oriented and . . . "designed to supply emergency aid to help the young mother get through the prenatal or early postpartum period. Such programs (were) based on an ill-conceived notion that early parenthood is an affliction from which one recovers in time. Most programs cease to offer services at the point where many of the gravest problems arise for the adolescent mother".

Similar surveys examining the public social services available to pregnant and parenting teenagers nationwide (General Accounting Office, 1986; Goldstein & Wallace, 1978) indicated that many of the programs were short-term, had

inadequate controls, and were special demonstrations, making it difficult to generalize the results to what might be expected in typical, longterm continuous service programs. These findings indicate that few adolescent parents are being served and that the services being provided are inadequate to meet current and future parenting needs. In summary, to date what requires further empirical research includes: (1) the factors responsible for effectiveness of programs for adolescent parents, (2) availability of the resources in the field, and (3) additional costs for service delivery.

Child Maltreatment and Adolescent Parenting Research Issues

In the United States an estimated 2,178,000 children were reported to child protective services for child abuse and neglect in 1987 (American Humane Association, 1989). The average age of involved children was seven years old, however, 44 percent of the reported and 41 percent of the substantiated cases were of children under six years old (American Humane Association, 1987). Of the estimated 2,000 to 5,000 fatalities, the average age of the child was two years. The most common of the four major forms of child maltreatment were child neglect and physical child abuse. Deprivation of necessities accounted for 46 percent of the

fatalities, while major physical injuries and minor physical injury were involved in 35 percent and 20 percent of the fatalities respectively (American Humane Association, 1987).

Research suggests that those variables associated with child maltreatment are factors commonly described in the literature on adolescent parenting. The pregnancies are likely to be unplanned (Granger, 1982), the parent unmarried, and the child raised in a single parent home (Kinard & Klerman, 1980). The family environment is likely to be high-risk for environmental stressors, such as; lower socio-economic status (Gil, 1970), unemployment (Holmes, 1978), underemployment (DeLissovoy, 1973; Steele, 1976), and family relationships problems (Helfer, 1975). Dysfunctional dynamics in the family such as inadequate parenting and modeling of violent behaviors (Elster & McAnarney, 1980; Straus, 1980), unresolved dependency needs (Steele, 1976), and a triad of unrealistic expectations, ignorance of child care/development, and low frustration tolerance (DeLissovoy, 1973; Steele, 1976) are recognized as a common foundation for child maltreatment.

That the adolescent parent commonly shares the demographic and dynamic variables of the type described in the child maltreatment literature is undeniable. Yet, to date a direct relationship between the two problems has not been confirmed. Studies involving incidence rates for

mothers who maltreated their children during their adolescence and those who bore a child during adolescence and later maltreated beyond their adolescence were reviewed (Bolton & Laner, 1981; Bolton, Laner, & Kane, 1980; Holm, 1986; Kinard & Klerman, 1980). Bolton et al., (1980) found that only 6.4 percent of the officially reported cases included a mother under the age of 20. Kinard and Klerman (1980) found a range of 3.45 percent to 9.29 percent for mothers who were under the age of 20 at the time of the incident.

Subsequent research (Bolton & Laner, 1981) using age at birth of the first child and age at reported maltreatment as discriminators found that adolescent mothers reported for maltreatment appeared to be responding to the environmental stresses of being poor, non-White, and living in a generally undesirable environmental circumstance. Mothers who bore their children during adolescence and were later reported for maltreatment were found to be responding to relationship pressures and the increasing parenting skills required for the management of an older child. Finally, child maltreatment was found to result from the cumulative stresses faced at earlier points in the parenting careers of the oldest group of mothers examined.

Miller (1984) reported the findings from a secondary analysis of data collected in the National Study of the

Incidence and Severity of Child Abuse and Neglect regarding the connection between maternal age and the incidence, type and severity of child maltreatment. The only conclusion that could be drawn was that teenage mothers were slightly overrepresented among maltreating mothers as compared with the general population. Findings did not support the inclusion of mother's age as a screening factor for the identification of families at high risk for abuse and neglect in hospital or social service populations. Regarding the differences in the type and severity of maltreatment between families in which the mothers were teenagers and those in which they were older, Miller (1984) found that children of teenage mothers were far more likely to suffer physical neglect, for example, inadequate nutrition and inattentiveness to health care needs. He hypothesized that

. . . physical neglect, which is associated with less formal education, less likelihood of employment, and lower income for the teenage mother, can be ameliorated only through the provision of material support to promote adequate basic care of the mother and child and additional educational and social support to sustain a higher quality of child care and infant stimulation (Miller, 1984, p. 556).

Taken together, these studies suggest that empirical data on the interaction of social stress, family disorganization, lack of social support, and other demographic and descriptive variables is needed.

Intervention in the area of child abuse prevention has consisted of several discrepant, unitary models to explain etiology, including the psychiatric, sociological, and ecological models (Belsky, 1980; Bronfenbrenner, 1977; Garbarino, 1977; Gelles, 1973; Gil, 1970; Parke, 1980, 1982; Spinetta & Rigler, 1972). Each model posits a different set of theoretical assumptions about the etiology of child abuse and ideas about appropriate intervention techniques which reflect the theoretical orientation espoused. With the emergence of the ecological model of child abuse prevention (Belsky, 1980; Garbarino, 1977; Rosenberg & Reppucci, 1983), these divergent etiological perspectives have been integrated into a coherent conceptual system which will formulate the theoretical basis for this research project.

The ecological model acknowledges that behavior is a function of both person and environment. Emphasis is placed on the dynamic nature of the individual-environment interaction, as opposed to studying one or the other variable in isolation. The ecological approach has implications for the design of prevention programs as well as for the development of theoretical conceptualizations of child abuse. First, by conceptualizing prevention in terms of a multifactorial causation model, primary prevention programs can be implemented at a variety of different levels to focus on enhancing competencies, personal resources, and

coping skills in parents that contribute to the development of positive parent-child relationships and prevent the onset of dysfunctional interactions. Programs with this philosophy have incorporated parenting skills, child development information, and coping strategies to reduce stress (Goldston, 1977; Gray, 1983a, 1983b; Larson, 1980; McAnarney et al., 1978; McLaughlin et al., 1989; Olds et al., 1986). Second, primary prevention programs can implement interventions that target vulnerable populations during periods of transition and stress. Studies focusing on targeting high-risk groups have implemented interventions that facilitate parent-child bonding (Cohen, Gray, & Wald, 1984; Gray, 1983a; Klaus & Kennell, 1976), home visitations (Gray & Kaplan, 1980; Larson, 1980; Olds, 1984), and continuous support persons (McAnarney et al., 1978; McLaughlin et al., 1989; Sosa et al., 1980).

In a recent comprehensive review of child abuse prevention programs, Rosenberg and Reppucci (1985) found only a relatively small number referred to actual primary prevention programs, and even fewer referred to programs with theoretical and research evaluation components. Methodological problems which cut across prevention of child abuse programs included: (a) the lack of appropriate comparisons groups; (b) poor choice of outcome measures; and (c) the failure to measure proximal programmatic objectives

and distal prevention goals (Lorion, 1983; Mahoney, 1978; Rosenberg & Reppucci, 1985). Despite these methodological concerns, researchers have been able to identify a number of factors related to the types of comprehensive interventions which were effective in preventing maltreatment.

Videka-Sherman (1986) reviewed the research on prevention programs of child abuse and neglect during infancy. Her findings indicate that certain kinds of intervention with families and infants result in small, but noticeable successes in terms of preventing maltreatment, encouraging normal child development, and reducing family stresses. Furthermore, although many of the child abuse prevention programs served teenage mothers (Ayoub & Jacewitz, 1982; Ayoub, Jacewitz, Gold, & Milner, 1983; Bolton, 1980; Thomasson, Berkovitz, Minor, Cassle, McCord, & Milner, 1981), almost none of them designed interventions or evaluations specifically to meet the special needs of teenage parents. These authors emphasize the need for empirical examination of comprehensive child abuse prevention programs that are most effective with adolescent parents.

Statement of the Problem

The literature regarding the relationship between teenage pregnancy and child maltreatment has been

inconclusive. To date, the only conclusions that can be drawn are that teenage mothers are slightly overrepresented among the maltreatment population, and that they may be responding to the interaction of environmental and/or social stress, economic deprivation, family disorganization, lack of social support and other demographic and descriptive factors. Several recent studies (Larson, 1980; McAnarney et al., 1978; McLaughlin et al., 1989; Olds et al., 1986; Sosa et al., 1980) suggest that some of the major difficulties that confront the adolescent and her child can be mitigated through a comprehensive prenatal health care program for the mother plus a continuity care approach involving both mother and infant postnatally. McLaughlin and his colleagues (McLaughlin et al., 1989) hypothesized that attempts to change parental behavior and to provide psychosocial support seem more likely to be effective with women who are experiencing pregnancy for the first time due to the lack of already established patterns of maternal behavior. The major problem addressed in the present study is stated as follows: Is there a relationship between teenage parental child abuse and participation in a comprehensive prevention program designed specifically for first time parents?

Significance of the Study

The present study was designed to empirically examine

theoretical and treatment assumptions in the area of child abuse prevention with adolescent parents. Specifically, the theoretical assumptions of the ecological model of child abuse prevention were applied to an intervention program designed to meet the needs of adolescent parents. Hypothesized relationships between child maltreatment and adolescent parenting, based on these theoretical assumptions, were examined.

Assumptions of the ecological model were chosen for evaluation because of implications for treatment in child abuse prevention. To assess whether child abuse potential could be reduced, an intervention group of pregnant adolescents was provided continuous, multi-level health care and psychosocial support during pregnancy and for one year following delivery. A comparison group of pregnant adolescents received routine health care services provided by a local health department. Pretest/ posttest standardized measures of child abuse potential were examined using analysis of covariance methods of analysis to determine the effect of intervention on reduction of child abuse potential for adolescents experiencing pregnancy for the first time.

In addition, the study provides needed empirical information about the relationship between child maltreatment and adolescent parenting. Data from the state

welfare computer files of confirmed reports of child abuse were compared with posttest abuse potential scores of adolescent parents in the child abuse intervention group and the routine health care services group.

Statement of the Hypotheses

The following research hypotheses were formulated:

1. Adolescent parents involved in a comprehensive child abuse prevention treatment program will have a significant reduction in child abuse potential as compared with adolescent parents who received routine health care services.
2. Adolescent parents with a high potential to abuse their child will have significantly more confirmed reports of physical child abuse.

The alpha level for each hypotheses was set at .05.

Organization of the Study

In Chapter II, a review of the related research in the area being examined is presented. This review includes a discussion of the historical aspects of child abuse, a discussion of the definitions and incidence of physical child abuse, and the theoretical models of physical child abuse. Also presented in this review is a discussion of the research on the incidence and consequences of teenage

pregnancy and childbearing, research related to teenage parenting and child development knowledge, and services to pregnant teenagers and their babies. In Chapter III, the research design is presented along with the method and procedures utilized in the study. Results of the data analysis are contained in Chapter IV. Finally, the summary of findings, conclusions, and recommendations are presented in Chapter V.

CHAPTER II

REVIEW OF RELATED LITERATURE

The following section is a review of the research pertinent to the current study. Several different content areas seem to have particular relevance to the current study and will be separately reviewed and identified by subheadings. These areas include, in order of their appearance, historical aspects of child abuse, definitions of physical child abuse, incidence of child abuse, theoretical models of child abuse, child abuse prevention programs, incidence of teenage pregnancy, consequences of teenage pregnancy and childbearing, and teenage parenting and child development knowledge.

Historical Aspects of Child Abuse

Child maltreatment is one of the most critical problems that exists in the United States today (Watkins & Bradbard, 1982). Although not widely recognized by the medical profession until the late sixties and early seventies, maltreatment of children has existed in society for centuries (Oates, 1986). Throughout history, people have justified physical and emotional abuse of children to expel evil spirits, please certain gods, and transmit educational

ideas, or maintain discipline (Rosenberg and Reppucci, 1983). Many cultures used infanticide as an acceptable method of family planning and for the disposal of ill, premature, or deformed infants (Helfer and Kempe, 1974; Watkins & Bradbard, 1982).

During the English industrial revolution in the mid-18th century, children from poor families provided cheap labor. Children as young as five years of age worked in factories for up to 14 hours each day and often suffered additional cruel treatment (Watkins & Bradbard, 1982). A movement for child labor reform led to the English parliament passing the first Factory Act in 1802, which protected children who had been separated from their parents and forced to work long hours in factories under appalling conditions. Children living with their parents, however, could still be forced to work in factories and the parents could collect their wages without fear of the Factory Act. Similarly, children in the United States were expected to work long, arduous hours in factories and mills (Watkins & Bradbard, 1982). As a direct result of the establishment of the Society for the Prevention of Cruelty to Animals in the late 19th century, the Society for the Prevention of Cruelty to Children was founded in New York City in 1871 (Oates, 1986). Only in the last 20 years have scholars, professionals and the public labeled parental abuse of

children a serious problem (Oates, 1986; Rosenberg & Reppucci, 1983; Watkins & Bradbard, 1982).

California was the first state to establish a child protection law in 1962-63 (Watkins & Bradbard, 1982). By the end of the sixties, every state in the union had passed laws that required, or at least recommended, that incidents of suspected abuse be reported to specified authorities (Gil, 1970). Within the last 15 years, Congress has enacted statues to identify, care for, and protect children exposed to maltreatment (Watkins & Bradbard, 1982).

Widespread public attention and concern were initially triggered in the early sixties following the publication of an article characterizing physically abused children as victims of the "battered child syndrome" (Kempe, Silverman, Steele, Droegemueller, & Silver, 1962). They concluded that physical abuse was a significant cause of death and injury among children and suggested that psychiatric factors were likely to be of importance in understanding the disorder. Since this landmark paper (Kempe et. al, 1962), the area of child maltreatment has produced a proliferation of research and literature across a variety of disciplines as people sought to understand this sad phenomenon. In 1976, the Society for the Prevention of Child Abuse and Neglect was established which publishes a quarterly journal, Child Abuse and Neglect (Oates, 1986).

Definitions of Physical Child Abuse

One of the problems inherent in child abuse research is the lack of a universally accepted definition. Child abuse is an extremely complex phenomenon ranging from fatal assault to deprivation of food or affection but also includes the various forms of sexual abuse (Oates, 1986; Parke & Collmer, 1975). Besharov (1981) points out that no one definition has achieved wide acceptance. There are almost as many definitions as there are research projects, thus making it extremely difficult to compare the results of different researchers, as some do not define their criteria of child abuse at all, while others use such varied criteria that the studies lack comparability (Oates, 1986).

Kempe and Helfer (1972), medical experts on child abuse, defined the phenomenon as "any child who received nonaccidental physical injury (or injuries) as a result of acts (or omissions) on the part of his parents or guardians" (p. 1). Gil (1970) offered a similar nonmedical definition of abuse which incorporated the element of intentionality but disregarded the cultural and personal relativity of child-rearing procedures. According to Gil (1970, p. 6), "physical abuse of children is the intentional, nonaccidental use of force, on the part of a parent or other caretaker interacting with a child in his care, aimed at

hurting, injuring, or destroying that child".

The federal Child Abuse Prevention and Treatment Act of 1974, (National Center on Child Abuse and Neglect, 1976) defined child maltreatment as:

The physical or mental injury, sexual abuse, negligent treatment, or maltreatment of a child under the age of 18 by a person who is responsible for the child's welfare under circumstances which indicate the child's health or welfare is harmed or threatened thereby (Public Law 93-247, 93rd Congress, Senate 1191).

As this definition implies, child abuse is a multifaceted phenomenon. Because of the vast range of maltreatment acts, Halperin (1979) developed categories representing both acts of commission (i.e., physical abuse, emotional abuse, and sexual abuse) and/or acts of omission (i.e., physical neglect, medical neglect, emotional neglect, educational neglect, and abandonment). Later, Cohn (1983) defined physical child abuse as nonaccidental injury or pattern of injuries to a child resulting in bruises and welts, broken bones, scars, serious internal injuries, or death.

While these definitions recognize the need to exclude accidental occurrences of physical harm, they imply that child abuse can be clearly identified as a set of behaviors imposed on a child by an adult. Parke (1980) on the other hand, stated that "child abuse is not merely a set of behaviors but is rather a culturally determined label

applied to injury patterns as an outcome of a judgement process by an observer" (p. 296). According to a social judgement approach (Bandura & Walters, 1963; Parke & Sawin, 1975; Walters & Parke, 1964), an observer takes into account various factors in deciding whether a particular injury is an instance of child abuse. Intentionality is merely one criterion. Parke (1980) posited that the antecedents, form and intensity of the response, the extent of the injury, and the role and status of agent and victim must be based on culturally defined standards concerning the rights of children and parents. Therefore, Parke (1980) modified the Kempe and Helfer (1972) definition to include these other variables.

Any child who during the course of parent-child interaction receives nonaccidental physical injury (or injuries) resulting from acts on the part of his or her caretakers that violate the community standards concerning the treatment of children (Parke, 1980, p.297).

For purposes of this research the definition of child abuse has been expanded to include the active as well as the passive behaviors, events, and/or situations which ultimately result in physical abuse to the child. This expansion allows for the incorporation of the prenatal period (fetal stage of development) during which some of the most devastating and irreversible forms of abuse can occur which may include: fetal alcohol syndrome, congenital birth

defects, low birthweights, premature births, stillborns, and miscarriages. Therefore, the following definition will be employed focusing only on aspects of physical child abuse.

Physical child abuse refers to creation, development, and/or active (or passive) promotion of behaviors, events, and/or situations under the parent's or caretaker's control which result in the intentional (nonaccidental) physical injury of a child under the age of 18 (Milner, 1980).

Incidence of Physical Child Abuse

The interpretation of incidence data of child abuse requires caution due to the fact that exact incidence rates are unknown, and statistics are conflicting. The National Center on Child Abuse and Neglect (1978) has repeatedly stressed that reported cases are only the "tip of the iceberg". Researchers must consider whether the figure given is based on the actual reported incidence of child abuse to an official agency or whether the figure has been an estimate to include cases thought to occur that have not been reported. Varying definitions of child abuse used by different authorities compound the difficulties in the interpretation of the data. Besharov (1983) found that in the United States, 60 percent of all reports were determined to be unfounded by the agencies that investigated. Thus, a situation exists of simultaneous under-reporting of many real cases and over-reporting of cases where child abuse and

neglect have not occurred (Oates, 1986).

Actual figures for abuse in the United States have varied considerably. Kempe and Helfer (1972) estimated a figure of 55,000 to 65,000 reported cases, based on an incidence of 250 to 300 cases per 1,000,000 population per year, while Gil (1970) estimated 2,500,000 to 4,000,000 cases per year based on a definition of some degree of physical injury. More recently Straus (1980), using a national probability survey of American children aged between three and 17 years, estimated that approximately 6,500,00 children were abused each year. Straus (1980) noted that this figure may be higher due to his data being based on violent acts carried out toward children, rather than on injuries received.

The latest statistics from the American Association for Protecting Children, indicate that an estimated 2,178,000 children were reported for child abuse and neglect in 1987 to child protective services agencies in the United States and participating jurisdictions (American Humane Association, 1989). In their report, the rate of reporting was estimated at 34.0 children per 1,000 United States child population in 1987. This represents an increase of four percent since 1986 and an increase of 225 percent in the eleven years between 1976 and 1987, the years for which the American Association for Protecting Children collected

national statistics. Similarly, an estimated 1,404,000 families were reported in 1987 (American Humane Association, 1989). The total number of families reported is a general indicator of the level of activity on the part of child protective services, each corresponding to the number of investigations performed. This volume of children reported for child abuse and neglect represents a monumental effort on the part of communities to identify children needing protection as well as an enormous demand on the child protective service system nationwide to investigate the reports and provide protective services.

Based on survey data (American Humane Association, 1989) from 27 states which represented 52 percent of the United States population in 1987, a national estimate of 686,000 children were substantiated for child abuse and neglect by child protective services. Approximately 37 to 40 percent of the children who were reported, the cases were substantiated. However, the number of cases substantiated does not equal the number of cases that were opened for protective services. The survey cautioned that it cannot be assumed that the lack of substantiating evidence means that no maltreatment had occurred, nor unequivocally that the child was free of risk. Nevertheless, the definition of substantiation implies a degree of certainty that the involved child was in fact at risk, and that some level of

intervention was warranted in the child's behalf.

The major patterns in the 1985 data compiled conjointly by the American Humane Association and the National Center on Child Abuse and Neglect were summarized as follows:

Professionals are reporting 54 percent of the cases, a rising trend.

Child protective service systems are substantiating about 40 to 43 percent of the cases.

The average age of the involved children is seven years old; there are slightly more female than male children reported.

Whites are under-represented in the reporting data.

The average age of perpetrators is 31.5 years. 44 percent of the children reported are under six years.

41 percent of the children associated with substantiated cases are under six years.

Female children are slightly more likely to be substantiated than males.

There has been a 13 percent increase in sexual abuse reports between 1984 and 1985, and it appears that the rate of increase in reported sexual maltreatment is decreasing.

Sexually maltreated children are two years older on average than are all reported children.

Sexually maltreated children tend to be reported by professionals 60 percent of the time compared to 54 percent of all reported children.

(American Humane Association, 1987, p. 23)

When considering the four major forms of child maltreatment, the most common are child neglect and physical child abuse (American Humane Association, 1987; National Center on Child Abuse and Neglect, 1986; Shepherd, 1986). In 1985, five states; Florida, Illinois, New York, Texas, and Utah, which represent 24 percent of the total United States child population, were selected for inclusion in a

national database study (American Humane Association, 1987).

A breakdown of percentages for the type of maltreatment

indicate:

Deprivation of Necessities	55.7%
Minor Physical Injury	15.4%
Sexual Maltreatment	11.7%
Other Maltreatment	10.2%
Emotional Maltreatment	8.9%
Unspecified Physical Injury	4.1%
Major Physical Injury	2.2%
(American Humane Association, 1987, p. 24)	

The unit of analysis for compiling the above percentages were based on documented reports of children, cases, and perpetrators (N = 225,360). A child could have experienced more than one maltreatment type, thus the total is greater than 100 percent. The national database study found no apparant change between 1984 and 1985; the percentage of maltreatment in each of the general categories remained relatively stable (American Humane Association, 1987). Reported fatalities from the five state national study indicated 253 cases. The actual number of children who died in 1985 as a result of maltreatment was not available, and therefore, this figure may not reflect all fatalities associated with child abuse and neglect (American Humane Association, 1987).

The characteristics of the 253 fatalities were described and compared to all reported cases in the 1985 study. Children reported as fatalities were comparatively

younger, the average age was 2.0 versus 7.1 years. Males were over-represented by comparison, 58 percent of fatalities versus 48 percent of all reported children. The most frequently associated type of maltreatment was deprivation of necessities (46 percent of the fatalities), followed by major physical injuries (35 percent), and minor physical injury (20 percent). Medical personnel (41 percent) was the single largest group of reporting sources for fatalities, followed by law enforcement (37 percent). In total, professional sources accounted for 89 percent of fatality reports compared to 54 percent of all child abuse and neglect reports (American Humane Association, 1987).

Theoretical Models of Child Abuse

To understand the dynamics of child abuse it is important to first examine what are often referred to as causation factors, etiological assumptions, and/or trigger mechanisms (Parke, 1982; Rosenberg & Reppucci, 1983; Shepherd, 1986). Several theoretical models have been advanced to explain child abuse, including the psychiatric, sociological, and ecological models (Belsky, 1980; Bronfenbrenner, 1977; Garbarino, 1977; Garbarino & Crouter, 1978; Gelles, 1973; Gil, 1970, 1975; Parke, 1980, 1982; Parke & Collmer, 1975; Spinetta & Rigler, 1972). Each model posits a different set of assumptions about the etiology of

child abuse, with the psychiatric and sociological positions at extreme ends of the spectrum. Each model will be discussed in more detail.

Psychiatric Model

The basic assumption of the psychiatric model of child abuse labels the parent as the principal cause of abuse, and assumes the problem to be a function of personality deficits and child-rearing history (Rosenberg & Reppucci, 1983; Watkins & Bradbard, 1982). Many early abuse studies in the late fifties and early sixties postulated that severe neurological or psychotic behavior was a strong etiological factor in child abuse (Watkins & Bradbard, 1982). Spinetta and Rigler (1972) reviewed the literature on personality characteristics and found few abusive parents to be psychotic. Furthermore, Kempe (1973) estimated that approximately 10 percent of abusive parents could be diagnosed as mentally ill. Although some psychotic individuals were reported child abusers, research indicates the vast majority were not psychotic.

Current research concerned with uncovering personality characteristics that distinguish child abusers from the general population has been unsuccessful in finding a consistent pattern of traits to describe abusive parents (Parke, 1982; Rosenberg & Reppucci, 1983; Watkins &

Bradbard, 1982). Typically, this research involved the listing of personality traits that characterized abusive parents derived either from clinical interviews and diagnoses or from a set of standardized test instruments. In a review of research using the psychiatric classification approach, Gelles (1973) found that of nineteen traits noted by various investigators, there was agreement by two or more authors on only 4 out of 19 traits with the remaining fifteen characteristics being unique to one particular author. For example, Melnick and Hurley (1969) compared two groups of Black, lower-class abusive and nonabusive mothers on 18 personality variables. The abusive mothers exhibited lower self-esteem, less family satisfaction, a higher pathogenic index, less ability to provide nurturance, higher frustration of need dependence, and a more openly rejectant stance toward children. Other investigators (Galdston, 1965; Steele & Pollock, 1968) found that abusive parents were insecure, unsure of being loved, and uneducated regarding child development, thus leading to unrealistic expectations being placed on their children. Spinetta and Rigler (1972, p. 299) concluded that "while the authors generally agreed that there is a defect in the abusive parent's personality that allows aggressive impulses to be expressed too freely, ...disagreement comes in describing the source of the aggressive impulses".

Not only were disagreements apparant in the research as to which characteristics adequately describe abusive parents, but even when consensus was found, the traits did not sufficiently capture the differences between abusers and nonabusers (Parke, 1982; Rosenberg & Reppucci, 1983; Watkins & Bradbard, 1982). As Steele and Pollock (1968, p. 109) remarked:

Child abusers have been described as immature, impulse-ridden, dependent, egocentric, demanding, and narcissistic. Such adjectives are essentially appropriate to those who abuse children, yet these qualities are so prevalent among people in general that they add little to specific understanding.

According to the psychiatric model, abusive parents report having experienced continual demands from their parents in the form of "expectations of good, submissive behavior, prompt obedience, never to make mistakes, to be sympathetic and comforting of parental distress, and to show approval and help from parental actions" (Steele & Pollock, 1968, p. 111). As a result of these unrealistic expectations, abusive parents feel helpless, inferior, unlovable, and unable to find empathy from others (Martin, 1982; Steele, 1980). Steele and Pollock (1968, p. 112) hypothesized that abusive parents who were deprived of basic mothering, defined as ". . . a lack of the deep sense of being cared for and cared about from the beginning of one's life", may want to bear a child in order to meet their own

dependency needs, referred to as role reversal (Martin, 1982; Morris & Gould, 1963; Steele, 1980). These egocentric expectations may lead to blaming the child who is incapable of meeting the parent's needs, with the parent consequently venting frustration on the child.

Several methodological problems with the research tend to obscure what little knowledge there might be regarding the psychiatric model. Some of the primary criticisms voiced by several authors (Gelles, 1973; Parke, 1982; Parke & Collmer, 1975; Rosenberg & Reppucci, 1983; Spinetta & Rigler, 1972) include the lack of appropriate comparison groups of nonabusers, predominantly ex post facto research studies, and small, nonrandomized samples which limit generality of results.

In summary, the psychiatric model of child abuse offers descriptive information but little empirical support for the assumption that the parent's intrapsychic deficits are the sole determinants of abusive behavior. The problem of child abuse is viewed as being too complex to be explained comprehensively by one model. Although the psychiatric approach may provide some indication of an individual's personal coping resources (i.e., the ability to trust, cope with change, or feel empathy), which partially derives from childhood experiences with significant adults, Rosenberg and Reppucci (1983) proposed that the traditional psychiatric

model does not acknowledge the dynamic interplay between individual and environmental factors. Thus, to know that abusive parents may be impulsive and aggressive is only part of the story. Although these characteristics may be enhanced by life circumstances, the propensity to act impulsively or aggressively may also be minimized when sufficient environmental supports are present, such as close friends or family who are willing to share child-care responsibilities. Parke and Collmer (1975) concluded that relabeling a pattern of behavior does not substitute for adequate explanations of child abuse.

Sociological Model

An alternative to the traditional personality-psychiatric model of child abuse shifts the causal focus from an analysis of the individual parent to the social environment (Parke, 1980, 1982; Parke & Collmer, 1975). In contrast to a psychiatric emphasis on abnormality, the sociological model assumes that normal parents are socialized into abusive child-care patterns through the interactive impact of cultural, community, and familial influences. The sociological perspective of child abuse focuses on the social values, attitudes, and economic conditions in society as a way of understanding abuse. Underlying this model are three basic assumptions: (1) the

cultural sanctioning of violence and aggression, (2) the familial context in which abuse is executed, and, (3) the community rules system in which the family system operates (Parke, 1982). These three sources of influence are viewed as different but interrelated aspects of a multifactor social interactional analysis.

The first assumption espoused by the sociological model is that in the United States, child abuse is partly the result of the cultural sanction of physical force to resolve interpersonal conflicts (Gil, 1970). Cross-cultural comparisons of rates of murder, assault and battery, television violence, and law-enforcement tactics with countries, such as England, Sweden, and Israel, revealed consistently higher levels of violence in the United States (Geis & Monahan, 1976; Liebert, Neale, & Davidson, 1973; Steinmetz, 1974a). Other cross-cultural evidence suggests that levels of violence in a society are reflected in levels of violence within the family. In a comparison of German, Italian, and Danish cities, Bellak & Antell (1974) found that higher suicide and homicide rates corresponded to higher levels of both parental and child aggression. Similarly, Steinmetz (1974a) in a United States - Canadian comparison found lower levels of intrafamilial aggression in Canada, where criminal aggressive activity is also lower. In another United States study, Steinmetz (1974b) reported

that parents who used verbal and physical aggression to resolve spousal disputes tended to use similar techniques in disciplining children - with children duplicating these tactics with siblings.

Familial abuse has been cited as the most visible form of child maltreatment and has received the majority of attention from researchers, professionals, and the public. Gil (1970) posited that abuse in the home is a manifestation of the culturally sanctioned use of physical punishment as a child-rearing technique. Gil (1970) argued the case as follows:

A key element of understanding abuse of children in the United States seems to be that the context of child-rearing does not exclude the use of physical force toward children by parents and others responsible for their socialization. Rather, American culture encourages in subtle and, at times, not so subtle ways, the use of "a certain measure" of physical force in rearing children...(p. 134).

In one survey (Korsch, Christian, Gozzi, & Carlson, 1965) of 100 low- and low-middle-income mothers regarding disciplinary methods, one quarter of the mothers reported that they were spanking their infants within the first six months, and almost half were spanking their infants by the end of the first year. Spanking ranked first as the preferred method of discipline. Gelles (1978) surveyed 2,143 intact families in an attempt to further define the type of physical force children of varying ages received

from their parents. A national probability sample was used, stratified by geographic region, type of community, and other demographic characteristics such as socioeconomic status, occupation, and age. Parents with children under three years were excluded from the survey. The findings indicated that during the year prior to the survey, 83 percent of 3- and 4-year-olds had some form of force used on them, 82 percent of children aged 5 through 9, 66 percent of children aged 10 through 15, and 34 percent of children aged 15 through 17. A breakdown on forms of force used (i.e., mild punishment labeled as slaps, spankings, pushes, and shoves) revealed that the milder forms of force were more frequently being used as a disciplinary technique. However, eight percent of the sample reported that at some point in raising their child, they had either kicked, bit, or hit the child with a fist, and nearly 3 in 100 parents indicated they had either used or threatened to use a gun or knife on the child (Gelles, 1978).

Cross-cultural studies comparing physical punishment as a child-rearing technique and the level of child abuse found cultures where physical punishment was not a common disciplinary tactic, the level of child abuse was infrequent (Goode, 1971) or non-existent (Sidel, 1972; Stevenson, 1974). This pattern was evidenced in cultures such as Taiwan, China, Japan, and Tahiti. Although these studies

support the sociological assumption that variations in the cultural level of violence are reflected in family violence, particularly in the use of physical punishment in child rearing, to date the direct relationship between disciplinary methods and child abuse lacks empirical evidence.

The second assumption of the sociological model delineates how the structure and organization of the family relate to child maltreatment. To understand how abuse develops within a family, studies have examined factors related to family roles and rules about appropriate child-rearing practices. Several authors (Bakan, 1971; Kempe & Helfer, 1972; Parke, 1982; Parke, Hymel, Power, & Tinsley, 1980; Spinetta & Rigler, 1972; Steele, 1980) have examined the abusive parent's child-rearing history to ascertain whether abusive child-rearing patterns were passed through generations. Although investigators expressed the view that abusive parents were frequently abused and neglected as children, causal explanations for future abusive child-rearing patterns have not been clearly established. A phenomenon referred to as lack of parenting imprint suggests that parents with a potential to abuse have had poor parent models (Steele, 1980). It was Steele's (1980) assumption that one's own childhood history of disciplinary treatment conveys a set of rules about appropriate child-rearing

practices. To the extent that there is a history of physically punitive child-rearing, the stage may be set for potential child abuse (Parke, 1982; Parke et al., 1980; Steele, 1980). In summary, these studies suggest that a particular pattern of child-rearing during one's own childhood may become an important determinant of future parenting patterns, regardless of whether they were physically abused as children.

Further evidence suggests that abusive parents have a limited repertoire of parenting skills and, specifically, lack appropriate disciplinary tactics, other than physical punishment (Disbrow, Doerr, & Caulfield, 1977; Green, Gaines, & Sandgrund, 1974; Van Stolk, 1972). Observational research of the child-rearing practices of abusive and nonabusive families, Reid and Taplin (1978) found that abusive mothers demonstrated more physical aggression and more negative commands than mothers in the nonabusive control groups. Similarly, Burgess (1978) reported that abusive and neglecting mothers directed more negative verbal and physical behavior to their children in a structured family interaction task than control mothers. Further, Gelfand, Hartmann, Lamb, Smith, Mahan, & Paul (1974) found that a child disciplined by an adult with punitive tactics was more likely to use punitive techniques when given the opportunity to train another child.

In contrast to these findings, two national surveys (Gil, 1970; National Institute of Mental Health, 1978) found little empirical evidence to support the generational hypothesis of abuse. Gil (1970) found that 14 percent of mothers and 7 percent of fathers in the abusive sample reported having been abused as children. Jayaratne (1977) deemed this to be one of the most commonly held misconceptions in the literature. Longitudinal studies of both abused and nonabused children is needed to assess the validity of the relationship between abusive parent's child-rearing history and child abuse potential (Parke, 1982). To date, the nature of current child-rearing practices of child abusing families is much better understood than is the nature of the child-rearing history of abusing adults.

To further understand child abuse, researchers have examined the child's role in eliciting abuse. Variables which have been investigated include hyperactivity (Morse, Sahler, & Freidman, 1970), prematurity and low-birth weight infants (Fanaroff, Kennell, & Klaus, 1972; Frodi, Lamb, Leavitt, & Donovan, 1978; Klaus & Kennell, 1976; Klein & Stern, 1971; Parke & Collmer, 1975), unwanted or out-of-wedlock pregnancy (Blumberg, 1974; Kempe et al., 1962; Oates, Davis, Ryan, & Stewart, 1979; Prescott, 1976; Resnick, 1970; Spinetta & Rigler, 1972; Steele & Pollock, 1968), and physical attractiveness of the child (Dion,

1974). Oates et al., (1979) found that children born out-of-wedlock were three and one-half times more likely to be victims of child abuse than children who were born legitimately. Similarly, unwanted children were found to be highly susceptible to child abuse, severe neglect, and infanticide (Blumberg, 1974; Prescott, 1976; Resnick, 1970; Spinetta & Rigler, 1972; Steele & Pollock, 1968). Abused children have been overrepresented among special groups such as those with physical defects and cerebral palsy, congenital cardiovascular defects, neurological impairment, and mental retardation (Broman, 1981). Dion (1974) empirically demonstrated that the degree of adult punitiveness was determined by the physical attractiveness of the child: An unattractive child received more severe punishment than an attractive child.

In summary, these studies provide support to the sociological position that child abuse must be viewed from an interactive perspective. Rather than locating the cause of abuse in either the sick parent or shifting the blame to the difficult child, the locus of analysis should be on the interaction patterns that develop between the parent and child. The implication of the literature reviewed suggests a consideration of all family members.

The third underlying assumption of the sociological model of child abuse implies that stress and frustration

elicit abusive behavior (Gil, 1970; Parke & Collmer, 1975). Many stresses said to contribute to abuse cut across socioeconomic classes, such as job-related tensions (Justice & Duncan, 1977), degree of job satisfaction (Parke & Collmer, 1975), single-parent families (Gil, 1970; Bandura, 1965), and marital conflict (National Center on Child Abuse and Neglect, 1977). Elmer (1967) concluded that stressful conditions may precipitate abuse, but stress appears to be a contributing factor rather than a sufficient condition for abuse. A large amount of stress in conjunction with isolation may create a strong enough combination to place a family at a high-risk for abuse (Rosenberg & Reppucci, 1983).

Social isolation was considered by several researchers to be a distinguishing characteristic of many abusive families (Cochran & Brassard, 1979; Elmer, 1967; Lenoski, 1974; Melnick & Hurley, 1969; Merrill, 1962; Young, 1964). Young (1964) found that 95 percent of the severely abusive families in her sample and 83 percent of the moderately abusive families had limited or no continuing relationships outside the family. Not only did the parents socially isolate themselves, but they were more likely to prevent their children from developing friendships or participating in extracurricular activities. Elmer (1967) found a difference between abusive and nonabusive parents using an

anomie scale that measured distrust, retreat, and isolation from society. Lenoski (1974) noted that of the abusive parents who have telephones, 89 percent have unlisted numbers, compared with 12 percent of nonabusive parents, thus denoting self-imposed isolation. In addition, 81 percent of the abusive parents preferred to resolve crises alone while 43 percent of the nonabusive parents chose to handle crises in that manner. The abusive mothers in Melnick and Hurley's (1969) sample reported feelings of being unable to cope with life responsibilities with a perceived lack of supports. Garbarino (1981) posited that abusive parents have learned neither to trust nor to make use of resources, such as, neighborhood or family networks when they need help. Having been or felt rejected repeatedly, such persons have become very suspicious of well-intentioned people and often deliberately avoid help when it is offered (Garbarino, 1981).

With the exception of a few studies (Parke & Collmer, 1975), investigators have only explored the hypothesis of self-imposed isolation. Few attempts have been made to examine the reasons why abusive families appear to remain isolated and whether community resources are accessible and receptive to the needs of these families. Although there is much evidence to suggest that social isolation is characteristic of abusive families, it is not clear whether

they initiate the isolation themselves to escape detection, lack the social skills needed to maintain social relationships, or are avoided by others because of the way they treat their children (Parke & Collmer, 1975). Further, the concept of isolation requires sufficient definition to specify whether results refer to the use of supports, a perception of availability of supports, the lack of feedback to parents from outside their neighborhood of culture, an unlisted phone number, or whatever else the researchers selects to investigate and label as isolation (Rosenberg & Reppucci, 1983).

In summary, the sociological model of child abuse seeks to identify societal attitudes, values, and life circumstances that may contribute to and/or maintain abusive behavior. However, not all people who are subject to excessive stress and other environmental conditions that undermine healthy family relationships become abusive towards their children (Rosenberg & Reppucci, 1983). The sociological model, similar to the psychiatric model, does not by itself sufficiently explain the multifaceted and complex phenomenon of child abuse.

Ecological Model

The ecological model is a relatively new conceptual approach aimed at integrating the divergent disciplinary

points of view for the explanation of child abuse (Belsky, 1980; Bronfenbrenner, 1977, 1979; Garbarino, 1981, 1986; Parke, 1982; Rosenberg & Reppucci, 1983). The ecological model acknowledges that behavior is a function of both person and environment. It does not disregard the contributions of individual, environment, or societal analyses, nor does it consider the data from these sources to be conflictual. Emphasis is placed on the dynamic nature of the individual-environment interaction, as opposed to studying one or the other variable in isolation. Parke (1982) conceived child abuse as a maladaptive response between family and child in an environment that does not provide the resources and supports necessary to offset the stress and abusive behavior. According to Garbarino (1981), the basic premise of an ecological analysis is to "identify situations in which the conditions of life conspire to compound rather than counteract the deficiencies and vulnerabilities of parents" (p. 5).

Bronfenbrenner (1977, 1979), the foremost advocate of the ecological model, emphasized the contexts in which human development takes places. He divided the ecological environment into four interdependent systems. These are:

1. The microsystem is the immediate setting that contains the developing child (e.g., family, school, day-care center).
2. The mesosystem encompasses the interrelations between two or more settings that contain the

- child (e.g., the connections among family, school, and peer group).
3. The exosystem "refers to one or more settings that do not involve the developing person as an active participant, but in which events occur that affect, or are affected by what happens in the setting containing the developing person. Exosystem structures include "the world of work, the neighborhood...the distribution of goods and services, communication and transportation facilities, and informal social networks"
 4. The macrosystem contains the cultural and subcultural values that influence the individual, family, and community. (Bronfenbrenner, 1977, p. 515).

Belsky (1980), expanding on Bronfenbrenner's model, described child abuse as a "social-psychological phenomenon" which is determined by "forces at work in the individual (ontogenic development) and the family (the microsystem), as well as the community (the exosystem), and the culture (the macrosystem) in which both the individual and the family are embedded" (p. 320).

Garbarino (1976) presented a similar ecological perspective by demonstrating that child abuse rates were, in fact, clearly related to the availability of formal socioeconomic support systems. Garbarino (1976) hypothesized that where support systems are sufficient and where more human resources are available to the family, the rate of child abuse will be lower. His results suggest that environmental stress exacerbated by the unavailability of socio-economic resources is related to child abuse.

Subsequent research (Garbarino & Crouter, 1978) provided clear support for an ecological analysis of child abuse, with emphasis on the recognition of the family's position in the community as an important determinant of abuse.

Parke (1982) suggested that child abuse must be viewed from a social interactional perspective rather than locating the cause of abuse in either the sick parent or shifting the blame to the difficult child. The locus of analysis should be on the interactional patterns that develop on the multilevels of analysis - culture, community, and the family. Parke (1982) advocated that the social interactional perspective be incorporated in prevention programs through a multilevel effort in which the interrelationships across the familial, community, and cultural levels are addressed.

In summary, the ecological model recognizes the relationship between the family and outside institutions, groups, and cultures, as well as the influence these outside factors exert on the parent-child relationship (Watkins & Bradbard, 1982). Proponents of this perspective view the provision of support systems as the most pervasive weapon against the war on child abuse. Accessibility to such supports shields high-risk families from social isolation and relieves them of stresses which contribute to a breakdown of the family unit (Cochran & Brassard, 1979;

Garbarino, 1981; Watkins & Bradbard, 1982).

As Parke and Collmer (1975) and others (Garbarino, 1981; Light, 1973; Parke, 1982; Rosenberg & Reppucci, 1983) have noted, the phenomenon of child abuse requires a multidimensional approach to capture its true complexity. The ecological approach to child abuse provides an organizational framework for the understanding and investigation of the multitude of factors that influence child abuse. It is the interaction between individual and environment that is of concern in the ecological approach. Furthermore, the ecological model has implications for the design of multidimensional child abuse prevention programs, and therefore, was selected as the theoretical basis for this research study.

Child Abuse Prevention Programs

In a recent review of prevention of child abuse literature from the seventies and early eighties, Rosenberg and Reppucci (1985), found that only a relatively small number of references referred to actual primary prevention programs and even fewer which referred to programs with evaluation components. Primary prevention efforts are designed to avoid completely the onset of disorder and seek "to engineer structures, processes, situations, events, and programs that maximally benefit, both in scope and temporal

stability, the psychological adjustment, effectiveness, happiness, and coping skills of large numbers of individuals" (Cowen, 1980, p. 264). Primary prevention programs focus on populations of people, not individuals, and are directed toward well people who may or may not be at risk for adverse psychological outcomes as a result of life circumstances or recent experiences (Cowen, 1983). Research to date have identified three categories of child abuse primary prevention programs: (a) programs that enhance competencies, resources, and coping skills, (b) programs that prevent the onset of abusive behavior, and (c) programs that target high-risk groups during periods of transition and life-stress (Bloom, 1979; Cowen, 1980, 1983; Felner, Farber & Primavera, 1983; Goldston, 1977; Rosenberg and Reppucci, 1985).

Studies focusing on enhancing competencies, personal resources, and coping skills in parents have usually incorporated parenting skills, child development information, and coping strategies to reduce stress in the parenting role into program designs. Programs have been directed at a variety of audiences including the general public (Gray, 1983b), specific cultural groups (Alvy & Rosen, 1980), first-time parents (Cooper, Dreznick & Rowe, 1982; Weal, 1979), or young adults who may be future parents (Morris, 1977). In general, these competency enhancement

programs were found innovative and cost-effective when directed to clearly specified audiences. However, due to methodological limitations these programs have not yet demonstrated that those individuals whose parenting knowledge and skills are strengthened become less vulnerable to the likelihood of abusing their children.

Programs with the goal of preventing the onset of abusive behavior typically have involved media campaigns; information, crises, and referral services; and efforts at the neighborhood and community levels to empower social networks in their ability to provide support and feedback to families (Cohn, 1981; Garbarino, Stocking, & Associates, 1980; Gray, 1983c). Although evaluations yielded positive results, several problems were noted with these type interventions. Service delivery problems including transportation, service location, and service cost were noted in predominantly rural and poverty areas. Other programs to increase public awareness resulted in massive reporting of suspected cases of child abuse raising questions regarding overreporting and intrusiveness of the state. Overall consumer satisfaction was generally positive and programs were well-attended, however, the effect of increased public awareness and related services on the incidence of child abuse is still unknown.

The third type of child abuse prevention programs

targets selected groups "who, by virtue of psychological vulnerabilities alone or in combination with environmental stressors, show a higher probability of abusing children compared to the general population" (Rosenberg & Reppucci, 1985, p. 581). Belsky (1980) identified specific risk factors associated with child abuse which include low socioeconomic status, single and teenage parenthood, isolation from support systems, and complicated pregnancies. Researchers studying such factors as early bonding and parent-child attachment (Ayoub & Jacewitz, 1982; Cohn, 1981; Cowen, 1983; Jason & Bogat, 1983; Klaus & Kennell, 1976); home visitors and parent aides (Gray, Cutler, Dean, & Kempe, 1976; Gray & Kaplan, 1980); and first-time parents (Olds, 1984; Wilson, 1981) have focused on the important time surrounding the birth of a baby. Programs that focused on early bonding were found to be a useful child abuse prevention strategy, but more research was recommended to clarify conceptual and methodological questions about the relation of bonding and attachment to child abuse. The findings of Olds (1984) and the work of Gray and colleagues (Gray et al., 1976; Gray & Kaplan, 1980) indicated that a well-designed home visitation program to appropriately targeted groups could prevent a range of problems including those resulting from poor prenatal health habits to dysfunctional and abusive parent-child relationships.

Cohn (1981) posited that timing is the single most important component of any child abuse prevention strategy. She described a comprehensive perinatal program designed to prevent child abuse by reaching first-time parents before abuse tendencies become overt, before a baby is hurt, permanently injured, or killed. Perinatal programs were demonstrated to be crucial to child abuse prevention because: (1) they anticipate the possibility of abuse; (2) they identify potential problems early; (3) they offer to all parents information and services that enhance the quality of the parent-child relationship; and (4) they refer families in need of longer term support to community resources (Cohn, 1981; Felner, Farber & Primavera, 1983). In another study, Wilson (1981) demonstrated that many first-time parents who were particularly vulnerable to stress, did not know how to care for the physical and emotional needs of their baby, and did not understand the necessary marital adjustments. Single parents and teenage parents were found to be frequently isolated and many had sole responsibility for the baby, thus creating severe stress and placing the baby possibly at-risk (Felner, Farber & Primavera, 1983; Wilson, 1981).

Videka-Sherman (1986) reviewed the research on prevention programs of child abuse and neglect during infancy. Programs which had been empirically demonstrated

to be successful in preventing maltreatment of young children shared the following features:

1. Professionals and nonprofessionals carried out well-defined, consistent, specified intervention protocols.
2. Successful intervention programs included practice and modeling of pleasurable experiences with families.
3. Home visitation served to involve families who otherwise would not have become engaged.
4. Environmental supports including transportation to prevention services, referral and coordination of services, and advocacy in obtaining housing, public assistance, medical care, and other human services were provided by all successful programs.
5. Parent education programs to increase parents' knowledge of child development and appropriate expectations of child development and behavior.
6. Group approaches to help develop peer relationships, improve interpersonal skills, and to increase opportunities for recreation and social support.
7. Programs to improve the quality of parent-child interaction such as rooming in after infant is born, infant stimulation programs, and structured parent-child interaction practice.
(Videka-Sherman, 1986, p. 1).

Lorion and Lounsbury (1981, p. 258) noted that the bottom line for evaluating primary prevention programs is "...demonstrated evidence of reductions in the incidence (the number of new cases observed during a specified time period) and prevalence (the total number of affected individuals within a given population) of the target disorder". In summary, the first step in developing a primary prevention child abuse program should involve rigorous research, empirically based data collection procedures and outcome measures, and be designed to decrease

both the incidence and prevalence rates of child abuse.

Incidence of Teenage Pregnancy

Since the Alan Guttmacher Institute's publication (Alan Guttmacher Institute, 1976), there has been growing public awareness that teenage pregnancy was not a special problem of any one economic, ethnic or social group, but that it effected young people from all regions of the country, from the cities and the farms, and from families of all socioeconomic levels, racial groups and religious denominations. Each year, more than one million 15 to 19 year olds become pregnant (Alan Guttmacher Institute, 1976).

Baldwin (1976) noted in a historical review of childbearing rates that the overall rate of teenage fertility actually decreased from a high of 97.3 births per 1,000 females aged 15 to 19 in 1957 to 58.7 in 1974. Although the total number of births among teenagers changed very little from 1960 to 1974 (609,000 and 608,000, respectively), the population of female teenagers had grown. Because birth rates among older women declined, teenagers were shown to be contributing a greater proportion of births to the national birthrate, increasing from 14 percent of the total rate in 1960 to 19 percent in 1974 (Baldwin, 1976).

In 1983, reportedly there were 500,000 live births and more than 1 million pregnancies in the United States to

women younger than age 20 (General Accounting Office, 1986). While teenage pregnancy rates have increased during the past decade, teenage birthrates, overall, have declined. In 1983, the birthrate was 78 in 1,000 women 18 to 19 years old, 32 in 1,000 women 15 to 17 years old, and 1.1 in 1,000 younger than 15 (General Accounting Office, 1986). The rate of older teenagers (18 to 19) decreased dramatically after 1970, but the rate for younger teenagers (15 to 17) did not decrease. The birthrate for very young teenagers (younger than 15) barely declined at all; 1.2 in 1,000 gave birth in 1972, and in 1982, the rate was 1.1 in 1,000 (General Accounting Office, 1986).

Although reliable information was not available on the extent of teenage pregnancy and births among the poor (General Accounting Office, 1986), it was noted that birthrates were increasing for unmarried teenagers and had barely declined for very young teenagers. The rate for unmarried teenagers (15 to 19) rose from 23 in 1,000 in 1972 to 29 in 1,000 in 1982, resulting in 270,000 births (30 in 1,000) in 1983 (General Accounting Office, 1986). This data indicates that not only were younger mothers less likely to have married or completed high school by the time of a birth, but that the younger the mother, the less likely she was to have completed school by the time she reached her twenties. Furthermore, the poor, unmarried, and very young

pregnant teenagers are said to be at particular risk of negative health, educational, and social outcomes.

Consequences of Teenage Pregnancy and Childbearing

The health, social, emotional, and economic consequences of teenage pregnancy and childbirth are all high-risk issues. The mortality rate of teenage mothers was higher than among all other age group (except those over 40), at 46.7 per 100,000 live births (Stickle & Ma, 1975). The death rate among mothers under 15 was 18 per 1000,000 live births - two and one-half times the rate among mothers aged 20 to 24 (Alan Guttmacher Institute, 1981).

Health Related Issues

From the medical standpoint, the adolescent pregnant patient is at potentially high risk and should be carefully monitored for several specific health problems including the use of alcohol, tobacco, and drugs; poor nutrition; anemia; pregnancy-induced hypertension; the increased incidence of intrauterine fetal growth retardation, cephalopelvic disproportion, and abruptio placentae; and the existence of or exposure to sexually transmitted diseases (Miller & Field, 1984). Teenage mothers were found to be 15 percent more likely to suffer from toxemia, 92 percent more likely to have anemia, and 23 percent more likely to suffer

complications attendant upon a premature birth than were mothers who gave birth at ages 20 to 24 (Alan Guttmacher Institute, 1981). A teenager who conceives during the 4 years after the onset of menstruation is at even greater nutritional risk because her physical growth may not yet be completed (Miller & Field, 1984). The increased mortality rates and the increased frequency of poor nutrition and anemia in teenagers seem to be statistically related to socioeconomic class (Miller & Field, 1984).

Adolescent pregnancy is associated with risks not only to the young mother but also to the health of the infant. Teenage mothers are two times more likely than those who delay childbearing until their twenties to have babies that are premature or low birth weight (less than 5.5 pounds (Alan Guttmacher Institute, 1981; Granger, 1982; Grant & Heald, 1972; Nortman, 1974; Stickle & Ma, 1975). For mothers younger than 15-years, the incidence of infants weighing less than 2,000 grams was nearly 7 percent, while for mothers in their twenties, the incidence was about 2 percent (Granger, 1982). Recent studies have shown a thirty percent increase in frequency of low birth weight infants and approximately a one-hundred percent increase in mortality among infants born to adolescent mothers as compared with infants born to mothers in the 20 to 34-year age group (Alan Guttmacher Institute, 1981; Graham, 1981;

Granger, 1982). Menken (1972) demonstrated that neonatal and postnatal mortality rates were twice as high for infants born to women younger than 15 years than for those born to women of age 20 to 30 (Menken, 1972; Nortman (1974). Infant death due to respiratory infection and accident are reported frequently (Pakter, Rosner, Jacobziner, & Greenstein, 1961). Low birth weight has been shown to be related to a number of developmental problems in the infant, including cerebral palsy, epilepsy, and mental retardation (Simkins, 1984). Many of the low-weight babies also born prematurely, are at a high risk of developing membrane disease and apoxia (Duenhoelter, Jemenez, & Baumann, 1975).

One of the major considerations when examining the obstetric consequences of adolescent pregnancy is the amount of prenatal care received. Often, because of self-denial of the pregnancy, avoidance of telling parents, and lack of knowledge of available resources, the adolescent may delay seeking early prenatal care. It is likely that many of the reported adverse effects of pregnancy are due to this delay in initiating medical care rather than adolescence itself (Dott & Fort, 1976; Graham, 1981; Menken, 1972; Simkins, 1984). Miller and Field (1984) estimated that 50 percent of adolescents received no prenatal care during the first trimester of pregnancy, and 16 percent received no prenatal care until the last trimester of pregnancy. Mothers 15 to

17 years were two times more likely to not receive prenatal care in the first trimester, and nearly four times more likely not to get care at all or to delay it until the last trimester (Alan Guttmacher Institute, 1981). Other studies have suggested that many of the negative obstetric consequences are due to socioeconomic status and the often limited medical care available to low income pregnant adolescents (Graham, 1981; Miller & Field, 1984; Simkins, 1984).

Education Related Issues

One of the far reaching consequences of teenage pregnancy includes a failure to complete high school which in turn has a serious impact on subsequent vocation and income (Alan Guttmacher Institute, 1981; Furstenberg, 1976; Granger, 1982; Simkins, 1984). The Alan Guttmacher Institute (1981) reported that of the 1.1 million teenage mothers in their study, two-thirds failed to complete high school. Moore and Hofferth (1978) showed that eight out of ten women who first became mothers at age 17 or younger never completed high school. Even when the first birth occurred at age 18 or 19, Simkins (1984) found that the rate for dropping out of school was 1.4 times greater than the general teenage population. Other researchers have found that the younger the adolescent at the time of pregnancy,

the less likely she is to return to school following the delivery (Furstenberg, 1976; Scales & Gordon, 1979).

If the first pregnancy disrupts the educational career of the young mother, additional childbearing generally brings it to an abrupt halt. Furstenberg (1976) found that one-half of adolescent mothers had failed to graduate from high school 5 years after the birth of the child. Apparently, this was not due to a lack of interest in completing their schooling, since one-half of those who did not graduate had attempted to return to school after childbirth, and 16 percent of this group were still enrolled in school. Furstenberg (1976) found that with each successive pregnancy, the proportion of dropouts rose, and among those women who had three or more subsequent pregnancies, 85 percent had left school before obtaining a high school diploma. Hardy, Welcher, Stanley, and Dallas (1978) reported only 35 percent of adolescent mothers in their study had completed high school by the time their children were 12 years old. This figure is less than half that of a comparison group of older mothers (77 percent). Similar results were found by Russ-Eft, Sprenger, and Beever (1979) who demonstrated that pregnancy and marriage were listed as the most frequently reported reasons for dropping out of school.

According to the Title IX of the Education Amendment of

1972, pregnant girls and young mothers are entitled to complete their educations with full access to resources and facilities provided by the public school system. The regulations regarding a pregnant adolescent's right to continue her education has to date been unsuccessful in the creation of facilities and supportive services to ensure that right (Educational Research Services, 1980). A recent survey regarding special supportive services for pregnant adolescents (Educational Research Services, 1980), found that one-third of the 154 school systems surveyed with 12,000 or more students required young mothers to leave regular educational settings as soon as their pregnancies were discovered. Of the 17,000 total school systems surveyed, only one-third provided special educational services for pregnant adolescents.

Psychosocial Related Issues

Research indicates that women who marry and/or have their first child very early in life tend to have additional children more rapidly than do older mothers (Coombs & Freedman, 1970; Hardy et al., 1978; Klein, 1974; Moore & Hofferth, 1978; Trussell & Menken, 1978). Trussell and Menken (1978) reported that women who start childbearing in their teens, have more children and have them closer together than women who delay their first birth. At least

one-half of teenage mothers experience a second pregnancy within 36 months of delivery (Ricketts, 1973). Keeve, Schlesinger, Wight, and Adams (1969) found that 60 percent of mothers age 12 to 16 had repeated pregnancies prior to the age of 19. They noted that pregnancy prior to age 17 was the strongest predictor of future reproductive behavior. Age of the mother at first birth was a stronger predictor than race or socioeconomic status (Keeve et al., 1969). Hardy et al. (1978) found a marked difference between adolescents and older mothers in the number of children born during a 12-year period following the mother's first child. During that period, adolescent mothers had an average of 3.25 children, significantly more than the 2.35 average for older mothers. In general, since adolescent mothers are farther from the end of their childbearing period than older mothers, the difference in the number of children born is predictably higher.

Lack of education is one of the major factors found to contribute to continued occupational and income disruptions. The Alan Guttmacher Institute (Alan Guttmacher Institute, 1976) indicated that 19 months following delivery, 91 percent of adolescent mothers had neither full- nor part-time employment. Seventy-two percent of these women were receiving welfare benefits, approximately 4.6 times greater compared to women who first gave birth in their twenties

(Alan Guttmacher Institute, 1976). Hardy et al. (1978) found that 36 percent of adolescent mothers reported incomes below \$5,000 per year, nearly twice the proportion of older mothers in the comparison group. At 7 years following childbirth, only 44 percent of adolescent mothers were independent of public assistance, a figure which remained unchanged at the 12-year follow-up compared to 66 percent of older mothers who were free of public assistance (Hardy et al., 1978). Furstenberg (1976) found that half the respondents at the five-year follow-up were currently employed and two-thirds of these women carried the major burden of supporting the family. Nearly half were living below the 1972 poverty level of \$4,275 for a nonfarm family of four. Similarly, Clapp and Raab (1978) cited 60 percent of adolescent mothers reported Aid to Families with Dependent Children (AFDC) as their sole source of income. Interestingly, although only 40 percent reported being employed, 77 percent had been employed at some time after the birth of a first child (Clapp & Raab, 1978). This would suggest that maintaining employment following the birth of a child was difficult.

Family and Marital Related Issues

Additionally, the relationship between adolescent pregnancy and family and marital disruptions have been

investigated (Alan Guttmacher Institute, 1976; Furstenberg, 1976; Hardy et al., 1978; McCarthy, 1981; Zelnik & Kantner, 1980). Furstenberg (1976) compared the marital histories of adolescent mothers with those of women who became pregnant and married in their twenties. While 3 percent of adolescent mothers had been married at the time of conception, this figure increased dramatically to 25 percent by the time of delivery. Only 21 percent of the comparison group were married by age 18, compared with 41 percent of adolescent mothers (Furstenberg, 1976). This increase suggests the influence pregnancy had on the timing of marriage plans. Of the marriages that occurred during the Furstenberg (1976) study, 70 percent were between the teenager and the father of the child. Marriage was much more likely to have occurred during the prenatal period if the father held a full-time job. Among the men working full-time, 34 percent married before delivery; whereas the rate of prenatal marriage among the unemployed males was only 4 percent (Furstenberg, 1976).

Premarital pregnancies resulting in adolescent marriages have been shown to greatly increase the probability of eventual marital dissolution (Alan Guttmacher Institute, 1976; Furstenberg, 1976; Hardy et al., 1978; McCarthy, 1981; Zelnick & Kantner, 1980). Forty-four percent of women who gave birth at ages 14 to 17 were

reported to be either separated or divorced within 15 years (Alan Guttmacher Institute, 1976). Furstenberg (1976) found that 20 percent of adolescent marriages ended in separation within one year, 45 percent by three years, and 60 percent by six years. Hardy et al. (1978) reported similar data. Over a 12-year period beginning with the birth of a first child, only 18.8 percent of adolescent mothers experienced no change in marital status, 26 percent underwent one change, 17 percent underwent two changes, and 37 percent three or more changes. This data was significantly different from the experiences of older mothers, of whom nearly 40 percent underwent no change in marital status, and 32 percent, one change (Hardy et al., 1978).

As a result of this pattern, by age eight, 70 percent of children first-born to women at age 17 or younger will spend part of their childhood in a single-parent household. This figure compares to 41 percent of the children first-born to women at ages 18 to 19, and about 25 percent of children first-born to women in their twenties (Alan Guttmacher Institute, 1976).

Teenage Parenting and Child Development Knowledge

Childrearing practices that are typical of adolescent parents have not been easily identified in the literature (Granger, 1982). Historically, Sears, Maccoby, and Levin

(1957) were, perhaps, the first to describe the parenting styles of young mothers. Unfortunately, in their study young mothers were predominantly less educated and had lower incomes than did the older mothers used for comparison purposes, thus making effects of age alone difficult to specify. Nonetheless, according to Sears et al. (1957), young mothers were reported to be ". . . more relaxed, more spontaneously warm, and more able to cope with the demands of child care" (p.436). Contrary to this perception, young mothers were also observed to be ". . . more irritable, in that they were quick to punish, more likely to quarrel with their husbands, and somewhat more likely to express an underlying feeling of hostility toward their children" (Sears et al., 1957, p. 437). Sears and his colleagues (Sears et al., 1957) speculated that the need to settle down to childrearing and the inability to participate in activities common to their age group led to a sense of frustration which may have been directed at the perceived cause of their life situation, namely, their children.

Later, Osofsky and Osofsky (1970) observed adolescent mother-infant dyads before and during pediatric visits and found the mothers typically demonstrated a great deal of warmth toward their infants but engaged in little verbal interaction. Infants, on the other hand, were active but relatively unresponsive toward their mothers. Similarly,

younger mothers were found to exhibit an average or high amount of physical interaction with their infants, but significantly less verbal interaction than older mothers (McLaughlin, Sandler, Sherrod, Vietz, & O'Connor, 1979; Osofsky, Osofsky, Kendall, & Rajan, 1973). McLaughlin et al. (1979) noted that young mothers tended to be slower in responding to the baby's needs. Recent findings by Phipps-Yonas (1980), suggest that adolescent mothers are less emotionally involved with their infants, offer less stimulation through talking, and provide less intellectual encouragement. In summary, these findings suggest that such maternal underinvolvement may lead to diminished responsiveness on the part of the baby, which in turn may be associated with deficiencies in motor and mental development.

Furstenberg (1976) demonstrated that the quality of maternal care provided to the children of teenage mothers depended not so much on the age of the mother as it did on the social structure of the family. Teenage mothers who resided in the home of the maternal grandmother provided a more nurturant atmosphere than mothers who lived by themselves. Other researchers have noted the effects of multiple caretakers on the child's physical health and cognitive development (Melnick, Brock, & Baker, 1979). Even in single-parent homes, age of mother still tended to be

correlated with the quality of care provided the infant.

Other researchers (DeLissovoy, 1973; Epstein, 1979; Field, Widmayer, Stringer, & Ignatoff, 1980; Granger, 1982) have investigated adolescent parents' expectations of and attitudes toward their children. When asked to estimate when their infants would first be able to sit alone, walk, talk, recognize a wrong-doing, be toilet trained, and so on, adolescent couples uniformly erred in the direction of overestimating the speed of development, sometimes by several months. When asked about the amount of crying they should expect from a baby who is fed and dry, one-third of the mothers and two-thirds of the fathers expected little or no crying and advocated little tolerance of crying in such situations (DeLissovoy, 1973). Regarding physical punishment, virtually all mothers in the DeLissovoy (1973) study indicated the use of spanking as punishment and all but two mothers indicated that their husbands also spanked the child.

Similarly, when given a card-sort task and asked to view videotapes to determine their knowledge of child development and facilitative caretaking practices, Epstein's (1979) findings indicated that pregnant teenagers expected too little too late from infants. Adolescents typically underestimated both needs and abilities of their infants at various development levels. Although knowledge of basic

care, health and nutrition, and perceptual and motor development were answered relatively accurately, items regarding cognitive, social, and language development found adolescents attributing needs and abilities to infants many months too late (Epstein, 1979). Field et al., (1980) administered questionnaires to adolescent and older mothers that were designed to tap their knowledge of child development and parenting attitudes. When infants were four months old, adolescent mothers indicated both less realistic expectations and less optimal attitudes than did the older mothers. In a subsequent study (Granger, 1982), a multiple-choice test regarding the time of emergence of developmental milestones was given to 371 male and female subjects 13 and 14 years old, all of whom had no formal instruction in child care or child development, and none of whom had ever been parents. He found that adolescents' expectations regarding child development were significantly less accurate for cognitive and social abilities than for motor and language abilities. Expectations were significantly less accurate for abilities that develop in the first year of life than for those that develop in the second year of life. Furthermore, subjects overestimated the actual time of emergence of various infant abilities (Granger, 1982).

Research in the areas of adolescents' knowledge of child development and adolescent parenting styles is far

from conclusive. One consistent theme of this review of the literature has suggested that although maternal age seems to be associated with the developmental progress of children, other variables correlated with age, such as family structure, social, and demographic factors seem to be critical determinants.

Summary

In summary, the foregoing review of related literature conveys the magnitude and complexity of the problems related to teenage pregnancy and child maltreatment. Although the adolescent mother and her child are shown to be at-risk for an array of negative health and psychosocial outcomes, recent research has demonstrated that comprehensive, multifaceted intervention can alleviate many of the lifelong problems which result from early pregnancy and parenthood. Studies have suggested that comprehensive prenatal services should focus on current and future parenting needs. Teenage pregnancy and motherhood most likely will continue to be a pervasive social problem, one that will not be attenuated in the near future. The development of comprehensive programs for the teenage parent is imperative. While we cannot assume that unplanned pregnancies among adolescents will be eliminated, it is equally important to bear in mind that without intervention many of the negative outcomes will also

not be eliminated. Research has demonstrated, however, that appropriate intervention, of a multifaceted nature, and over a period of time, can alleviate many of the problems which result from early pregnancy and parenthood.

The prevention of child abuse can be accomplished only by short-circuiting the abuse prior to its development. Promising strategies have involved programs directed toward potentially high-risk populations (pregnant teenagers) and have involved providing comprehensive intervention services during potentially high-risk time periods (perinatal). Comprehensive prevention is based on the assumption that all participants should benefit from the program - regardless of whether or not they actually would have abused their children at some later date. Finally, the ecological model of child abuse prevention indicates that intervention needs to be a multilevel effort in which the interrelationships across the family, community, and individual are recognized.

Further research is needed in the area of adolescent childbearing and child maltreatment examining possible correlations. Because of this recognized deficit in the literature, the present study investigated the effects of a comprehensive child abuse prevention program for adolescent parents in reducing the potential for and incidence of child maltreatment.

CHAPTER III

METHODS

Design

A quasi-experimental pretest/posttest non-equivalent comparison group served as the design for the study. This design is similar to the pretest/posttest control group design in that it compares two groups after one group has been exposed to treatment (Campbell & Stanley, 1963). In this study, subjects who received prenatal and postnatal intervention services were compared with subjects who received routine services provided by a local county health department. This design is appropriate, despite the weakness that subjects are not randomly assigned. The strength of the design is that it employs a comparison group which contributes to the generality of results.

The nonequivalent comparison group design is defined by a pretest and an unknown assignment rule. It is appropriate for research in which the pretest measure can be used to project over time how large the posttest differences between groups would be, given no treatment effects (Judd & Kenny, 1981). This design may be confounded by differential selection of subjects given the unknown and nonrandom

assignment rule. Demographic variables were examined to determine whether statistical controls were needed should differential selection be indicated by significant between group differences on these variables.

Subjects

The sample consisted of 72 pregnant female and 14 male partners (N = 86) who had been recruited from a maternity health care clinic at a county health department in a southwestern state. To meet the criteria for inclusion in the study, female subjects were pregnant for the first time (primiparous), within the first six months of pregnancy, and under age 20. When accompanying the pregnant females, male partners were invited to participate and included in the study. Subjects were volunteers and were not reimbursed for their participation. Additional demographic characteristics were examined to describe the sample and are discussed in the Results section.

Procedure

The "Teens and Toddlers: Child Abuse Prevention Project" was partially funded through a federal grant administered out of the county health department. The research project extended from September 1, 1986 through September 30, 1988. Subjects were recruited following

identification of the pregnancy at the health department family planning clinic or upon referral to the health department maternity clinic by public health nurses, school counselors, school nurses, child welfare workers, physicians, or other social service agencies. To be eligible for the study, female subjects had to meet the inclusion criteria described previously. All eligible subjects were met by a research assistant or one of the "Teens and Toddlers" primary professionals, who described the research study to them. Subjects were informed of their rights as human subjects and an informed consent was obtained on all subjects stating the purpose of the research, possible benefits, demands, testing and data utilization, and, that confidentiality would be maintained throughout the study (see Appendixes A and B).

A personal data questionnaire and the Child Abuse Potential (CAP) Inventory (pretest) were administered all subjects upon voluntary entry in the study. Tests were administered by a trained research assistant or trained health department employee at the county health department site. Testing was scheduled during a routine visit to the health department for other clinic services, such as, maternity, WIC, well baby clinic, as a means of conserving time and financial limitations of the subject. Demographic information included age, gender, race, marital status,

years of education, and income was obtained to describe the sample and are discussed in the Results section.

To insure confidentiality, no identifying information accompanied the test data with each subject assigned a code number for data analyses. The test data was stored in a separate site and at no time during the study were scores made available to the professional health department staff providing services. The researcher, blind to the subjects, computerized all demographic and test data by code number.

Teens and Toddlers Treatment Group

Subjects who agreed to participate actively in the intervention services resulted in placement in the Teens and Toddlers Treatment Group with random assignment to one of the two primary professionals. Teens and Toddlers subjects received prenatal and postnatal intervention services, free of charge, as outlined in the "Teens and Toddlers" program agenda (see Appendixes C and D). Teens and Toddlers subjects were visited in the home by one of the "Teens and Toddlers" program professionals two times per month prenatally and one time per month postnatally for special program services. The primary professional team was composed of the project director and the project home health care social worker. Teens and Toddlers subjects were provided a copy of Teens and Toddlers: A Child Abuse

Prevention Program for Teen Parents (England, Burks, & Fulton, 1988). Copies of Teens and Toddlers may be ordered by writing the researcher.

Teens and Toddlers Treatment Group prenatal intervention services included educational information and literature regarding: mother/fetal nutrition, fetal development during the first, second, and third trimester, self-care during pregnancy, prenatal exercises, and the importance of maintaining regular prenatal medical care. Also, stress reduction, personal goals, decision making skills, selecting baby clothes and baby equipment, breastfeeding, day care selection, smoking and alcohol use during pregnancy, marriage, fathering, single parenting, budget planning, and birthing information.

Teens and Toddlers Treatment Group postnatal intervention services provided the subjects included: providing the infant a car seat for transportation home from the hospital, instruction in bathing the infant, mother/infant exercises, encouraging infant motor development, and infant nutrition. Also, effective discipline, child proofing the home for safety, infant toys to make at home, weaning, parent/child communication, mealtime management, stress reduction management, toilet training, and managing children's misbehaviors.

Additionally, Teens and Toddlers Treatment Group

subjects were informed of and encouraged to participate in all routine health care services provided by the county health department. The routine health care services include: enrollment in the Special Supplemental Food Program for Women, Infants, and Children (WIC) clinic, family planning clinic, maternity, clinic, nutrition classes, immunization clinic, well baby clinic, well child clinic, and psychosocial services as appropriate. Because of age, all pregnant adolescents are automatically eligible for WIC benefits which consists of vouchers for purchase of nutritional foods for pregnant women and children under age two.

Following posttesting, subjects involved in the Teens and Toddlers Treatment Group were asked to complete a program evaluation (see Appendix E) to determine which child abuse intervention services were most helpful for purposes of future programming.

Routine Health Care Treatment Group

Subjects who agreed to only pre and posttesting without active participation in the "Teens and Toddlers" intervention services were placed in the Routine Health Care (comparison) Treatment Group. Routine Health Care subjects were automatically enrolled in the WIC program upon identification of the pregnancy. Routine Health Care

subjects were informed of and encouraged to participate in all routine services provided, free of charge, by the county health department.

Routine multidisciplinary health care services provided by the health department professionals include: immunization clinic, Special Supplemental Food Program for Women, Infants, and Children (WIC), nutrition counseling, family planning clinic, maternity clinic, well baby clinic, well child clinic, and psychosocial services as appropriate. Health care services were administered out of the county health department facility by regular staff, i.e. public health nurses, nutritionists, social workers. No health care services were provided the Routine Health Care Treatment Group in the subjects' home nor were they visited in the home by the regular health department staff.

Routine Health Care Treatment Group subjects were administered the CAP Inventory (pretest) upon entrance in the research study and re-administered the CAP Inventory (posttest) within six-months following delivery of their baby. Test administration was identical to the procedure described previously. Routine Health Care subjects completed personal data questionnaires for purposes of demographic comparison of the sample. Code numbers were assigned all Routine Health Care subjects to insure confidentiality of identifying information. The test data

was stored in a separate site and regular health department staff were denied access to the data. Test data and demographic information of the Routine Health Care subjects were computerized by code number by the researcher.

Instrumentation

Two procedures were used to measure the dependent variables of interest. The Child Abuse Potential (CAP) Inventory (Milner, 1980) was used as a pretest/ posttest dependent measure to assess an individual's child abuse potential. Confirmed report/ no confirmed reports of physical child abuse was a second dependent measure used to determine the degree of correspondence between an individual's child abuse potential, as measured by the CAP Inventory, and subsequent reports of physical child abuse obtained through the state child welfare computer records.

Child Abuse Potential Inventory

The Child Abuse Potential (CAP) Inventory (Form VI) was developed by Milner (1980) primarily as a screening instrument for the detection of physical child abuse. The CAP Inventory is a brief, self-administered screening instrument containing 160 items. Each item is answered in a forced-choice, agree-disagree format. Form VI of the CAP Inventory has a readability level of grade three.

The Child Abuse Potential (CAP) Inventory (Form VI) contains a total of ten scales. The primary clinical scale is the 77-item abuse scale. The abuse scale can be divided into six factor scales: distress, rigidity, unhappiness, problems with child and self, problems with family, and problems with others. In addition, the CAP Inventory contains three validity scales: the lie scale, the random response scale, and the inconsistency scale. The validity scales are used in various combinations to produce three response distortion indexes: the faking-good index, faking-bad index, and random response index.

The abuse scale consists of 77-items that are randomly distributed throughout the Inventory. When more than 10% of the abuse scale items are not answered, the Inventory is considered incomplete and invalid. Available data indicate a correct classification rate of 94% for abusers (Milner & Wimberley, 1980). A valid, elevated abuse scale score at or above the cut-off of 215 indicates that the individual has characteristics similar to known, active physical child abusers (Milner, 1980). For social service screening evaluations, elevated abuse scores are more likely to represent abuse than low abuse scores are likely to represent nonabuse. For this reason, Milner (1980) recommends that the more conservative (i.e., fewer false positives) cut-off score of 215 be employed for most

classification purposes.

Contained in the 77-item abuse scale are items related to the dimension of distress, rigidity, and unhappiness. These three dimensions of the CAP Inventory were found to be the most significant in distinguishing potential abusers (Milner & Wimberley, 1980; Milner, Gold, & Wimberley, 1985). On the distress dimension items represent a general theme of personal distress, including feeling frustrated, out-of-control, mixed-up, sad, lonely, depressed, worried, confused, worthless, rejected, misunderstood and angry. On the rigidity dimension are items regarding an individual's attitudes toward the appearance and behavior of children. This dimension is evidenced through opinions that children should be neat, should be orderly in their behavior, should be obedient, should never cause trouble, should never disobey, should stay clean, should be quiet, and should not talk back. A second rigidity theme involves beliefs that a home should be spotless and everything should be in its place. As they relate to abuse, these beliefs may be expressed through the forceful treatment of children to make them fit a rigid mold. The unhappiness dimension centers on personal problems with items pertaining to a general unhappiness with life and a specific unhappiness component related to difficulties in relationships such as not having a good sex life, not being in love, and not having close

friends.

The reliability of the CAP Inventory has been extensively evaluated (Milner, 1980). Internal consistency estimates are provided for control, at-risk, neglect, and abuse groups as a function of location, gender, age, educational level, and ethnic background. Temporal stability estimates are provided for control subjects across four time intervals (i.e., one-day, one-week, one-month, and three-months) and as a function of demographic variables. Overall, the 77-item CAP abuse scale has the highest internal consistency reliabilities (i.e., .92-.96 for controls and .95-.98 for abusers). Temporal stability estimates for the abuse scale are also quite adequate (i.e., .91 and .75 for one-day and three-month intervals, respectively). Relative to the abuse scale, factor scales and validity scales have less internal consistency and temporal stability.

The data regarding the standard error of measurement of the CAP Inventory indicate a high degree of similarity among SEM estimates across control, at-risk, and abuse subjects (Milner, 1980). The overall mean SEM (approximately 19 abuse scale points) also represents a moderate degree of measurement error. For the three validity scales, the SEM estimates for the random response scale are the most consistent across groups. The SEM estimates for the lie

scale and the inconsistency scale are slightly lower for the control subjects. Similar results were obtained for the six factor scales. That is, there was a general tendency for the SEM estimates for the six factor scales to be smaller for the control groups.

The content and constructs measured by the Child Abuse Potential (CAP) Inventory abuse scale are the constructs reported in the literature as associated with child abuse, such as: a history of abuse, low self-esteem, poor ego-strength, an external locus of control, distress, anxiety, anger, aggression, depression, pathology, misperceptions of child's behavior, physiological arousal to children, a lack of assertiveness skills, poor attachment, poor parenting skills (Milner & Wimberley, 1980). In a recent study (Milner, Gold, & Wimberley, 1986), a factor analysis was used to determine the underlying dimensionality of the 77-item abuse scale. Six factors were found that appeared to be descriptive of the CAP Inventory abuse scale. These factors, or dimensions, were interpreted as distress, rigidity, unhappiness, problems with child and self, problems with family, and problems with others.

Cross-validation data for the Child Abuse Potential (CAP) Inventory (Milner, Gold, & Wimberley, 1986), indicate the abuse scale correctly classified 85.4% of the subjects, with 82.7% of the active, untreated, physical child abusers

and 88.2% of the non-abusers control subjects correctly identified. Overall correct classification rate for the valid protocols was 93.2%, with 89.2% of the abusers and 96.3% of the control subjects correctly classified.

Data regarding predictive validity (future type) of the Child Abuse Potential (CAP) Inventory indicate a moderate, positive relation ($r = .34$) between elevated abuse scale scores and subsequent reports of abuse (Milner, Gold, Ayoub, & Jacewitz, 1984). In this study of a group of parents ($N = 200$) at risk for problems in parenting, a significant relationship was found between CAP Inventory abuse scores and subsequent physical abuse ($p < .0001$).

Confirmed Abuse/ No Confirmed Abuse

Nine months following completion of the two-year research project, data was obtained from the state child welfare computer file regarding confirmed report/ no confirmed report of physical child abuse on the Teens and Toddlers Treatment Group and Routine Health Care Treatment Group subjects involved in the study. Permission to receive verification of confirmed abuse reports through the state computer file for purposes of program evaluation was obtained from the State Department of Human Services, Office of Child and Welfare Statistics, Management Analysis and Planning Unit. The subjects' code number, birthdate, and

name were provided by the project director to the child welfare county administrator in order to verify state computer records for confirmed reports of physical child abuse. The researcher, blind to the subjects' identity, was provided only the code number of any confirmed reports of physical child abuse. The code numbers were matched with the respective Child Abuse Potential (CAP) Inventory posttest abuse scale scores for data analyses.

Statistical Analyses

There were three primary statistical analyses performed on the data. First, in order to equate the groups prior to intervention, the one-way analysis of variance (ANOVA) was employed to analyze between group differences using the CAP Inventory pretest abuse scale score as the dependent measure of child abuse potential. The independent variable was the type of group, intervention and comparison.

Second, the analysis of covariance (ANCOVA) was employed to assess whether differences in the dependent variable, posttest abuse scale scores, can be attributed to differential levels of the independent variable, type of group, while the covariate, pretest abuse scale scores, are held constant. The analysis of covariance (ANCOVA) is frequently used as a method to provide statistical control in quasi-experimental designs where subjects are not

randomly assigned to treatments. The assumption of the analysis of covariance (ANCOVA) being that differences among treatment conditions that are present because of a failure to randomly assign subjects will be (a) reflected in the observations on one or more covariables and (b) appropriately removed from dependent variable effects through analysis of covariance (ANCOVA) adjustments (Porter & Raudenbush, 1987). The pretest dependent variable was selected as the covariate because of its strong relationship to the outcome (dependent) variable and because of its measurement prior to the implementation of treatment rendering it impervious to change by the treatment.

Third, to examine the unique contributions of the abuse scale and the six factor scales that comprise the CAP Inventory clinical scales, separate analysis of covariance (ANCOVAS) were performed on each of the seven factor posttest scores (abuse, distress, rigidity, unhappiness, problems with child and self, problems with family, and problems with others) using the pretest factor scores as the covariate.

Additionally, Pearson correlation coefficients were calculated to determine possible relationships between age and the six factor scales that comprise the CAP Inventory after separating the total sample by gender. Female subjects were grouped: age 14 to 15, age 16 to 17, and 18 to

19; while male subjects were grouped: age 16 to 18, age 19 to 21, and age 22 to 29. The significance criterion was set at $\alpha = .05$ for each analyses. SPSS-X procedures were used to conduct all these analyses (SPSS-X User's Guide, 1983).

CHAPTER IV

RESULTS

The results of the study are presented in this chapter. Analytical evaluation to determine whether the two groups differed on pretreatment variables are provided. Evaluation of the main hypotheses of the study and results are summarized.

Preliminary Analyses

SPSS-X FREQ procedures were used to conduct descriptive statistical analyses (SPSS-X User's Guide, 1983). The frequencies and percentages of demographic characteristics (Table I) of the 86 male and female subjects in the Teens and Toddlers Treatment Group and the Routine Health Care Treatment Group groups were tabulated to facilitate comparison to other research samples.

Demographic Variables

The average age of the female subjects (range 14 to 20 years) at posttesting for the Teens and Toddlers Treatment Group (N = 35) was 17.68 years (SD = 1.54) and for the Routine Health Care Treatment Group (N = 37) was 17.13 years (SD = 1.31). The average age of the male subjects (range 16

to 29 years) for the Teens and Toddlers Treatment Group (N = 10) was 22.3 years (SD = 3.09) and for the Routine Health Care Treatment Group (N = 4) was 18.0 years (SD = 1.82).

Racial composition of the female Teens and Toddlers subjects was 83% Caucasian, 11% Black, and 6% Native American.

Female Routine Health Care subjects' racial composition was 84% Caucasian, 8% Black, and 8% American Indian. Male subjects in both groups were only of the Caucasian race.

Marital status for the female Teens and Toddlers Treatment Group was 46% single, 54% married, while marital status for the female Routine Health Care Treatment Group was 81% single, 16% married, and 3% separated. Male Teens and Toddlers Treatment Groups' marital status was 10% single, 90% married, while marital status for the male Routine Health Care Treatment Group was 10% single, 90% married.

The highest grade level completed for the female Teens and Toddlers and Routine Health Care subjects (range 7 to 11) was a median of 10 (SD = 1.6) and 10 (SD = 1.7), respectively. Of the female Teens and Toddlers subjects 51% had less than a high school diploma, 29% had graduated from high school, 6% had received their GED, 8% were attending vocational technical school, and 6% were attending college. Education level of the female Routine Health Care subjects indicated 54% had less than a high school diploma, 22% had

graduated from high school, 8% had received their GED, 11% were attending vocational technical school, and 5% were attending college.

For the male subjects the highest grade level completed (range 9 to 12) was a median of 11 (SD = .71), Teens and Toddlers Treatment Group, and a median of 11 (SD = .72), Routine Health Care Treatment Group. Respectively, for the Teens and Toddlers and Routine Health Care male subjects, 30% and 50% had less than a high school education, 40% and 25% had graduated from high school, 10% and 0% had received their GED, and 20% and 25% were attending college.

The average monthly income of the female subjects in the Teens and Toddlers Treatment Group and the Routine Health Care Treatment Group was \$462.35 (range \$80 to \$1400). Ninety-four percent of the female Teens and Toddler subjects and 95% of the female Routine Health Care subjects lived on a monthly income below \$500. The average monthly income (range \$200 to \$1375) of the male subjects in the Teens and Toddlers Treatment Group and the Routine Health Care Treatment Group was \$699.70. Of the Teens and Toddlers and Routine Health Care male subjects, respectively 70% and 50% lived on less than \$500 per month. According to the federal Medicaid eligibility law (Alan Guttmacher Institute, 1987) for pregnant women, infants, and children (WIC) effective January 1, 1988, a monthly income of \$644 is

considered poverty level for a family size of two people. The unborn child is counted in determining family size. Therefore, a pregnant woman is always counted as two people.

Pretreatment Child Abuse Potential

The first analysis evaluated whether there was a difference in the responses given to the dependent variable between the Teens and Toddlers Treatment Group and the Routine Health Care Treatment Group prior to treatment. A one-way analysis of variance (ANOVA) of pretest CAP Inventory abuse scale scores indicated no significant difference in the responses given by the two groups prior to treatment, $F(1,84) = .4027, p > .05$.

An obtained CAP Inventory abuse scale score at or above the cut-off of 215 is considered elevated (Milner, 1980). Although there was no significant between group differences, the mean abuse scores for the Teens and Toddlers Treatment Group ($M = 154.76$) were slightly lower than the mean abuse scores for the Routine Health Care Treatment Group ($M = 167.49$). Range of scores for Teens and Toddlers Treatment Group and the Routine Health Care Treatment Group was from 17 to 364; respective standard deviations were 86.20 and 98.64. Although individual abuse scale scores were at or above the cut-off score of 215, the mean abuse scores for both groups fell below the cut-off score recommended for

TABLE I
 FREQUENCIES AND PERCENTAGES FOR DEMOGRAPHIC
 VARIABLES FOR MALES AND FEMALES
 ACROSS GROUPS

Variable	Frequency/Percent per Group			
	Teens/Toddlers		Routine Health Care	
	Males N=10	Females N=35	Males N=4	Females N=37
<u>Race</u>				
Anglo	10/100	29/83	4/100	31/84
Black	0/0	4/11	0/0	3/08
American Indian	0/0	2/06	0/0	3/08
<u>Marital Status</u>				
Single	1/10	16/46	1/10	30/81
Married	9/90	19/54	3/90	6/16
Separated	0/0	0/0	0/0	1/03
<u>Education Level</u>				
Less than High School	3/30	18/51	2/50	20/54
High School Graduate	4/40	10/29	1/25	8/22
GED	1/10	2/06	0/0	3/08
Vocational Technical	0/0	3/08	0/0	4/11
Attend College	2/20	2/06	1/25	2/05
<u>Monthly Income</u>				
Less than \$500	7/70	33/94	2/50	35/95
Greater than \$500	3/30	2/06	2/50	2/05

most classification purposes (Milner, 1980). These mean scores fall below the mean abuse score of 188.6 (SD = 93.2) identified from a normative sample (Harris & Milner, unpublished data) of similar subjects aged (17.1) with no children (Milner, 1980).

Main Analyses

Hypothesis One: The Effects of the Intervention on Child Abuse Potential Variables

The first hypothesis for this study was:

Adolescent parents involved in a comprehensive child abuse prevention treatment program will have a significant reduction in child abuse potential as compared with adolescent parents who received routine health care services.

To determine if there was an effect attributable to participation in the Teens and Toddlers Treatment Group, an analysis of covariance (ANCOVA) compared the Teens and Toddlers and the Routine Health Care groups' posttest CAP Inventory abuse scale scores, using pretreatment performance as the covariate. SPSS-X ANOVA procedures were used for these analyses (SPSS-X User's Guide, 1983). The analysis of covariance of the dependent variable indicated that there was no significant main effect for type of treatment,

$F(1,83) = 1.44, p > .05$ (Table II). The analysis failed to support the hypothesis regarding group differences for child abuse potential. Inspection of the respective group means indicates that the Teens and Toddlers Treatment Group ($M = 136.31$) was reporting fewer high risk abuse potential factors at posttest than was the Routine Health Care Treatment Group ($M = 164.61$). The level of abuse potential across conditions at posttest was statistically significant ($F(1,83) = 36.323, p < .0001$)

Subsequently, analysis of covariance (ANCOVA) tests were performed to assess the unique contributions on each of the six CAP Inventory factor scales (distress, rigidity, unhappiness, problems with child and self, problems from family, and problems with others) that make up the abuse scale, using pretreatment performance as the covariate. There were no significant difference between groups for the six factor scales (Table II).

Pearson correlation coefficients were calculated using each of the factor scales comprising the child abuse potential dependent measure and age, separated for the effects of gender (Table III). For male subjects, the degree of unhappiness was found to be positively correlated with age ($r = .69, p < .003$). That is, older male subjects (22 to 29 age group) were responding to significantly more factors related to general unhappiness with life and to

TABLE II
 MEANS, ADJUSTED MEANS, STANDARD DEVIATIONS, AND
 ANALYSIS OF COVARIANCE (F VALUES) ACROSS
 TREATMENT GROUPS FOR THE CHILD ABUSE
 POTENTIAL INVENTORY POSTTEST

Variable	Mean	Adjusted Mean	SD	F Value
Full Abuse Scale				
Teens/Toddlers	136.31	139.74	95.08	
Routine Health	164.61	160.84	97.75	1.44
Distress				
Teens/Toddlers	86.29	89.12	72.11	
Routine Health	104.29	101.18	72.18	.819
Rigidity				
Teens/Toddlers	17.60	17.11	15.04	
Routine Health	17.34	17.89	11.52	.089
Unhappiness				
Teens/Toddlers	11.76	12.08	12.15	
Routine Health	13.88	13.53	13.23	.322
Problems with child and self				
Teens/Toddlers	1.40	1.39	4.08	
Routine Health	2.17	2.18	4.43	.730
Problems with family				
Teens/Toddlers	8.93	9.16	11.14	
Routine Health	13.76	13.50	12.77	3.062
Problems with others				
Teens/Toddlers	10.33	10.44	8.22	
Routine Health	13.17	13.07	8.30	2.233

TABLE III
 CORRELATION COEFFICIENTS CALCULATED BETWEEN THE
 CHILD ABUSE POTENTIAL INVENTORY VARIABLES
 AND AGE, SEPARATED BY GENDER

	ABUSE ^a	DIST ^b	RIGD ^c	UNHAP ^d	FAPR ^e	CHPR ^f	OTPR ^g
<hr/>							
AGE							
Male	.2440	-.0681	.2397	.6888*	.3004	.2880	-.0985
Female	-.1841	-.1457	-.1073	-.0943	-.244*	-.0423	-.2214*

* $p < .05$ (one-tailed).

a Full Abuse Scale.

b Distress Scale.

c Rigidity Scale.

d Unhappiness Scale.

e Problems with Family.

f Problems with Child and Self.

g Problems with Others.

specific unhappiness in relationships than were the younger male subjects (16 to 18 age group or 19 to 21 age group). There was an inverse correlation between the female subjects and two of the factors related to problems with family ($r = -.24$, $p < .019$) and for factors related to problems with others ($r = -.22$, $p < .03$). Younger female subjects (14 to 15 age group) were reporting significantly more difficulties with their family relationships and social relationships as compared to older female subjects (16 to 17 age group or 18 to 19 age group).

Following posttesting, Teens and Toddlers Treatment Group subjects were asked to evaluate the "Teens and Toddlers: Child Abuse Prevention Project". Subjects were asked, "What services were the most helpful?" Subjects could respond to as many items as applicable. Ninety-three percent responded that overall the project had been helpful. Eighty-nine percent of the subjects reported that the books, handouts, video tapes, and WIC clinic were the most helpful. Seventy-eight percent felt the home visitations were most helpful. Seventy percent felt the prenatal education and staff were most helpful, and sixty percent felt the postnatal education was most helpful. Other aspects of the project mentioned as helpful by at least fifty percent of the subjects were other clinics available at the health department; well child (62%), immunization (55%), family

planning (54%), and nutrition (52%). Comments regarding ways to improve the project were to provide more handouts and more information about labor. Home visitations and video tape educational material were recommended for continuation.

Hypothesis Two: The Effects of Child Abuse Potential on Confirmed Reports of Physical Child Abuse Outcome.

The second hypothesis in this study was:

Adolescent parent with a high potential to abuse their child will have significantly more confirmed reports of physical child abuse.

Nine months following the completion of the two-year child abuse prevention project, the names, birthdates, and code numbers of the 86 subjects involved in the study were provided, confidentially, to the county child welfare administrator for verification with state computer records regarding confirmed reports of physical child abuse. A copy of each subjects informed consent accompanied the request for verification to be placed on file with the county child welfare administrator.

The verification provided by the state child welfare records of confirmed cases of physical child abuse were used as the outcome criteria for the second hypothesis. For the 86 subjects who completed the CAP Inventory, there were no

confirmed reports of physical child abuse in either the Teens and Toddlers Treatment Group or the Routine Health Care Treatment Group. Furthermore, none of the 86 subjects had been reported for investigation due to suspected physical child abuse throughout the two-year period the research project was in operation or for the nine-month period following completion of the "Teens and Toddlers: Child Abuse Prevention Project." The second hypothesis was not supported. However, the finding of 100% no confirmed reports of physical child abuse of the 86 subjects involved in either the Teens and Toddlers Treatment Group or the Routine Health Care Treatment Group suggests either failures to be reported or experimental treatment successes.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Research has documented the complexity and magnitude of the problems related to adolescent pregnancy and child maltreatment. While the pattern of demographic and dynamic variables commonly associated with abusive parents are similar to factors commonly found among adolescent mothers, to date research has failed to demonstrate a direct relationship. The only research conclusions regarding the connection between maternal age and the incidence, type, and severity of child maltreatment that can be drawn was that adolescent mothers were slightly overrepresented among the general maltreatment population. Recent studies have demonstrated that certain types of comprehensive multidimensional intervention with families and infants have resulted in small, but noticeable successes in preventing child maltreatment, encouraging normal child development, and reducing family stress. However, few prevention programs were specifically designed to meet the special needs of young, first-time parents. Comprehensive child abuse preventive programs with adolescent parents requires

further empirical research to identify efficacious treatment practices. The present study was designed to determine if there was an effect attributable to participation in a comprehensive child abuse prevention program for adolescent parents in reducing the potential for and incidence of physical child maltreatment.

Analysis of covariance compared the Teens and Toddlers Treatment Group (N = 45) and the Routine Health Care Treatment Group (N = 41) on the Child Abuse Potential (CAP) Inventory, using pretreatment performance as the covariate. The results failed to support predicted significant differences in child abuse potential between adolescent parents in the two groups. In addition, a significant relationship was predicted between child abuse potential and confirmed reports of physical child abuse at nine-month follow-up through the state child welfare computer records. Although results did not support the predicted hypothesis, the 100% no-confirmed reports of physical child abuse on the 86 subjects in either the Teens and Toddlers Treatment Group or the Routine Health Care Treatment Group was considered as either failures to be reported or experimental treatment successes.

Correlations calculated on the six factor scales which comprise the total abuse scale of the CAP Inventory yielded important insights into the relationship between age and

factors related to abuse potential, after separated for gender. Older male subjects (22 to 29 years) reported significantly more general unhappiness with life and difficulties in relationships than younger male subjects (16 to 18, 19 to 21 years). Younger females subjects (14 to 15 years) responded significantly more often to factors related to problems with family relationships and to difficulties in social relationships than older female subjects (16 to 17, 18 to 19 years).

Program evaluations completed by Teens and Toddlers Treatment Group subjects indicated a favorable response (93%) overall to the "Teens and Toddlers: Child Abuse Prevention Project." Specifically the educational information, books, handouts, video tapes (89%), the home visitations (78%), prenatal education (70%), and postnatal education (60%), major components of the child abuse intervention program, were designated as helpful services. The routine health care clinics provided at the health department, WIC (89%), well child (62%), immunization (55%), family planning (54%), and nutrition (52%) were indicated as helpful services. Home visitations and video tapes were recommended for continuation services.

Several design limitations common to applied research are noteworthy. Internal validity of results is limited by a number of design characteristics. The voluntary nature of

the study and the nonrandom selection of subjects contributes to sources of internal variability regarding differential selection and statistical regression and limit the generalizability of findings. Considering the developmental age group of the sample and the extended length of the study (two-years), limitations regarding history, maturation, and attrition of subjects further limit internal validity. Results may only be generalized to pregnant adolescents (<20 years) who choose to participate in routine health department services or in program evaluation intervention services. Reactivity may limit external validity because of the home visitation services and extensive professional contact provided intervention subjects. Despite these shortcomings, results obtained contribute to variables relevant to adolescent parents and physical child maltreatment.

Conclusions

Results of the present study failed to replicate previous findings utilizing the CAP Inventory as the dependent measure of program efficacy (Ayoub et al., 1983; Milner & Ayoub, 1980; Milner et al., 1984; Thomasson et al., 1981). Teens and Toddlers Treatment Group subjects were expected to score lower on child abuse potential at posttest than subjects in the Routine Health Care Treatment Group.

The lack of a significant relationship between child abuse potential and participation in a child abuse intervention program may be the result of several factors. It is possible the groups sampled differ from previous high-risk samples in age and prior history of abusive behavior. Although previous studies did not label the participants as abusive, subjects had been referred by protective service workers or recruited by project staff, and had been assessed to be at-risk of parenting problems during screening procedures. Mean scores reported by subjects in both experimental and control groups were lower than at-risk groups (Ayoub et al., 1983; Milner & Ayoub, 1980) and high-risk groups (Thomasson et al., 1981) reported by the samples on which the CAP Inventory was standardized.

Alternatively, failure to replicate previous findings may result from inadequacies of the CAP Inventory used to measure abuse potential in the present adolescent sample. Milner (1980) notes several trends in the abuse potential score with norm groups. Groups of childless high school and undergraduate student subjects generally tend to earn abuse scores that are slightly higher than comparison parents (Milner, 1980). Abuse score elevations may result from attempts by childless subjects to deal with items that relate to one's child. Other data (Milner, 1980) indicate that high school and undergraduate students are more

careless than most groups when they are responding to CAP Inventory items, thus resulting in elevated abuse scores. These findings suggest that a more reliable measure of child abuse potential designed for evaluating the younger childless population is needed to more fully delineate high risk for abusive behavior among adolescent parents.

The present failure to identify differences between groups is not surprising, considering the broad range of abuse potential scores obtained by both the Teens and Toddlers Treatment Group and the Routine Health Care Treatment Group. The Teens and Toddlers groups' abuse scores ranged at pretest from 17 to 364 (SD = 98.64) and at posttest from 20 to 407 (SD = 95.08). The Routine Health Care groups' abuse scores ranged at pretest from 36 to 336 (SD = 85.20) and at posttest from 21 to 403 (SD = 97.75). Previous findings (Ayoub et al., 1983; Thomasson et al., 1981) suggest that individuals with relatively high abuse scores (+2 SDs above the norm mean of 91 (SD = 75) on the CAP Inventory may be more resistant to treatment than those with only moderately elevated abuse scores (+1 and +2 SDs above the norm mean). Furthermore, Milner (1980) cautions that previous quasi-experimental studies reported using the CAP Inventory did not utilize comparison groups and that change scores may represent regression of the mean artifacts. Taken together these factors may have

contributed to the failure to identify group differences in the present study. The CAP Inventory may be utilized more efficiently to screen older (>20 years) parents most in need of intervention services rather than for use with younger (<20 years) non-parents or for comparison group program evaluations.

Failure to identify predicted differences between groups may be a function of the groups sampled. Social isolation has been considered by several researchers to be a distinguishing characteristic of many abusive families (Cochran & Brassard, 1979; Elmer, 1967; Garbarino, 1981; Lenoski, 1974; Parke, 1980; 1982). In the present study, the possibility of differential selection is a consideration. Pregnant adolescents who seek community health services and choose to be involved in a child abuse research program may be characterized as being less socially isolated.

The rate of child maltreatment has been hypothesized as being inversely related to the socioeconomic support system of the family in the community (Garbarino, 1976). While formal and informal support can be utilized during times of crises, abusive families generally make poor use of available resources. Participation in the supportive services provided through the county health department may contribute to the lack of relevant differences between the

Teens and Toddlers and Routine Health Care treatment groups. The decision to seek available community resources and to participate in the intervention research project may characterize a motivation to acquire assistance for managing the stress of pregnancy more efficiently.

While this study focused on the relationship between adolescent parental child abuse and participation in a prevention program, age and gender emerged as interesting variables. Age differences among the male and female subjects with regard to factors which comprise the abuse potential scale were identified. Younger females (14 to 15 years) were responding at posttest (following the birth of the baby) more often to factors related to problems with family relationships and difficulties with social relationships than were older females (16 to 19 years). Previous research (Bolton & Laner, 1981) suggests that the pressures felt by the adolescent mothers are quite different for the younger versus the older adolescent. Differential factors appear to be at work, even within the short range of age of adolescent mothers. This pattern of age differential of results can be explained by a life transitions framework which recognizes that some life events are potential precipitants or markers of transitional processes requiring successful redefinition of roles, and the development and reorganization of social support systems (Felner et al.,

1983). This suggests that the life transition of moving from "child" to "parent" following the birth of a baby represents a dramatic role shift which may present different problems in role definition and interaction patterns for younger adolescent aged females and her family and peers.

Adolescent pregnancy not only requires that a family adapt to a change of roles, but also generates other responsibilities precipitated by the birth of the baby, such as reorganization of the family's daily routine, development of new skills, accommodation to new financial strains, and restructuring of family and peer interaction patterns. The stress factors created by family disorganization and social relationship disruption proposed as contributing to a high-risk environment for child maltreatment have been repeatedly documented regardless of the age of the mother. Current findings are consistent with those of Bolton and Laner (1981), who found that the practical issues of family and social environment outweigh the pressures of parental skills and capacities in the younger adolescent mothers. These findings have implications for the assessment and treatment of pregnant adolescents presenting themselves for support services. Where pregnancy occurs in the younger aged adolescent, a closer examination of family and social issues may be indicated. Use of the CAP Inventory may be helpful in the process of identifying specific areas of the younger

adolescent's family and social relationships that may become the focus of program development.

Older male subjects (22 to 29 years) were responding to significantly more generalized unhappiness with life and dissatisfaction with relationships than were the younger male subjects (16 to 21 years). Older males (N = 6) were further in age (5.5 years) from their female partners than were younger males, .66 years for the 16 to 18 age group (N = 3), and 2.2 years for the 19 to 21 age group (N = 5). Marital status of older males was 100% married as compared to younger males, 37% single and 63% married. Marital disruption and relationship dissolution have been noted as characteristic of adolescent pregnancies (Furstenberg, 1976). Stable relationships are more commonly predicted for older adolescent females (Bolton & Laner, 1981; McCarthy 1981; Zelnick & Kantner, 1980). The living situations of these young couples suggest further economic distress when considering the annual mean income of male subjects was \$699.70. Racial differences support previous findings that Anglo males are far more likely than Black males to legitimize a nonmaritally conceived birth (McCarthy, 1981). These findings suggest the high level of dissatisfaction older male subjects were experiencing following the birth of the infant may be related to a combination of variables.

When the pregnant adolescent was involved in an ongoing

relationship, including the male partner in the treatment was viewed as imperative. A significant majority (90%) of the males in both the Teens and Toddlers and Routine Health Care treatment groups were married to the pregnant adolescents. This may suggest that males are more likely to participate in prevention programs when they are married to the pregnant female. Male partners may be a significant source of support to the pregnant females which service providers have traditionally failed to recognize. Programs which only provide assistance to "no male head of households" may be actually contributing to the breakdown of the family system. Incorporating prevention services which appeal to the male partners may serve to improve the quality of child rearing practices of the young parents, reduce the situational demands on the marriage, and increase the marital couple's ability to withstand adversity.

The implications of these findings for adolescent couples presenting themselves for pregnancy services are important. The needs of the male partners may be equally as important as the needs of the pregnant adolescent in terms of stabilizing the marital relationship and preventing father-infant abuse. The CAP Inventory may be helpful in identifying areas of distress in the male partners requiring separate supportive and preventive services.

While three of the six factor scales composing the

total abuse scale were found to be significantly related to abuse potential among different age groups after separated for gender, covariance of the six scales related to group differences was not significant. This finding suggests that individual factors scores are not, by themselves, adequate to differentiate abuse potential. These findings support previous observations that the total abuse scale predicted abuse potential better than any of the individual factor scales (Milner et al., 1984). Before conclusions can be drawn about the relationship between adolescent pregnancy and child maltreatment, further hypotheses testing using multivariate research methodology is indicated. Important questions to consider would be: What resources at one level or combination of levels are necessary to offset the particular vulnerabilities of adolescent parents? With increased knowledge of the adolescent parent population, preventive strategies could be targeted to the most potent positive and negative influences.

Recommendations

The present study examined theoretical and treatment assumptions in the area of child abuse prevention with adolescent parents. Methodological shortcomings of previous program evaluation research were addressed by using an adequate comparison group, program design specifically to

meet the present and future needs of the target population, standardized measure, and multiple outcome measures.

Failure to identify group differences suggests the need for continued evaluative research of preventive programs with adolescent parents utilizing the ecological model of child abuse prevention. Nine-month follow-up through the state child welfare records indicated that none of the subjects in the Teens and Toddlers Treatment Group or the Routine Health Care Treatment Group had been reported for physical child abuse. This finding is consistent with previous research that did not support the inclusion of mother's age as a screening factor for the identification of families at high risk for abuse and neglect.

Furthermore, previous studies have shown that when provided psychosocial support, comprehensive perinatal health care, child development and parent education services, adolescent mothers have borne healthy infants and have done a reasonably good job of raising their children (Furstenberg, 1976; McAnarney et al., 1978; McLaughlin et al., 1989; Olds et al., 1986; Sears et al., 1957). Little recognition has been given to the possibility that there may be some specific strengths as well as weaknesses related to the youthfulness and/or background of these mothers. Future longitudinal follow-up research comparing the parental behaviors and characteristics of the adolescent mothers who

exhibit adequate coping and parental behaviors with those adolescent mothers who do not is warranted.

The ecological model of child abuse prevention assumes that the causes of child maltreatment are multiply determined regardless of the age of the perpetrator. Child abuse is viewed as a maladaptive response between family and child to an environment that does not provide the resources and supports necessary to offset the stress and abusive behavior. The birth of a child is oftentimes a stressful event affecting couple and family relationships. The problem of adjusting to a newborn is sometimes exacerbated by circumstances that may make abusive reactions more likely. For example, dissatisfactions are probably exaggerated when the child is the product of an unwanted or out-of-wedlock pregnancy born to a young adolescent female. Moreover, the arrival of another child in an already large family or lower socioeconomic family may strain the resources of the family even greater. Stress-elicited abuse is not limited to lower socioeconomic families; it is reported to occur in lower-, middle-, and upper-class families.

Adolescent parents have been overrepresented among reported cases of child maltreatment perhaps because of a number of confounding variables related to low income which may also be overrepresented; examples are low education, low

level of occupation, large family size, and unemployment. Further study of demographic variables reveals that factors such as ethnic status, single-parent status, age at time of marriage, and age at time of first birth are also confounded with low income. As a result, no firm conclusions can be drawn regarding the extent to which any of these variables contribute to child abuse by adolescent parents. The literature is oftentimes methodologically misleading when adolescent parents are compared to national averages rather than to appropriate comparison groups that are similar in demographic composition.

The general stressful life events model of abuse is not class related; the particular sources of stress may simply be different for lower, middle, and upper economic class families. The relationship between levels of social support and more positive adjustment to stressful life events may be as much a function of the fact that individuals with good coping abilities are able to seek and maintain the support they need as it is a function of any stress "buffering" effects of social support. The development of a theory of social stress would be a major contribution to understanding child maltreatment. A theory which recognizes the multifaceted determinants which interact and combine to produce abusive behavior in some families while other families are able to cope with similar stressors without

becoming abusive is needed. Future research of the role of social support in adapting to stressful life events needs to recognize that the relationship may be a bidirectional one, with greater emphasis placed on the relationship between coping skills and personality of individuals and their levels and types of social support.

A unique aspect of this study was the involvement of the male partners. Programs have traditionally tended to focus only on the mother-infant dyad, thus neglecting the needs of male partners who may desire more involvement in the childrearing and family responsibilities. Males are increasingly being urged by society to participate in infant and child care responsibilities. If males are expected to assume roles for which they are inadequately prepared, the increase of father-infant abuse could be a possible outcome. Child abuse prevention programs which incorporate child-care tactics for both mothers and fathers focused on practical skills such as feeding and diapering, as well as, the development of play patterns, the general sequence of development to expect in infants, and the importance of shared caretaking as a means of stress reduction in the home is vital. Through the involvement of male partners, the strengths inherent in the young couples' relationship can perhaps be enhanced so that the outcome for these young families will be more positive. Future research on

preventive intervention strategies which incorporate the male partners is needed.

One of the national goals established in 1985 by the National Committee for Prevention of Child Abuse (NCPCA) is to reduce child abuse by at least 20% by 1990 (Garbarino, 1986). This raises the question: Can success in preventing child abuse be measured? And, if so, how? This represents a major challenge to policymakers, program managers, and researchers regarding program design and evaluation.

The major problem addressed in the present study was stated as follows: Is there a relationship between adolescent parental child abuse and participation in a comprehensive prevention program designed specifically for first time parents? The findings failed to support a significant main effect for type of treatment for child abuse potential among adolescent parents. Although there was no significant between group differences, the level of abuse potential across conditions at posttest was statistically significant. Both treatment groups were reporting a reduction in high risk abuse potential factors six-months following delivery of the baby. Additionally, none of the adolescent parents involved in either of the treatment conditions had been reported for investigation due to suspected physical child abuse throughout the two-year period of the research project or during the nine-month

period following completion of the research project. These findings suggest that for adolescent parents who receive comprehensive perinatal health care services, the potential for and incidence of child maltreatment can be significantly reduced.

Given the current results, future preventive research should design studies which acknowledge the distinction between reducing incidence and reducing severity, and plan evaluation efforts to document any differential effects. It is not just the prevention of child maltreatment with which we need be concerned from a preventive perspective, but equally important the building of competency, health, and well-being among first time parents. The amount of effort aimed at understanding conditions which produce positive adaptive outcomes has been relatively miniscule when compared to efforts focusing on pathology. The individual variations and the environmental circumstances which facilitate a more effective level of adaptation should not be overlooked. Research focused on the development of comprehensive perinatal treatment programs for adolescent parents which are more individually focused, proactive, and truly preventive is needed.

Difficulties with inconsistencies across reporting jurisdictions suggest the need for evaluation efforts which utilize multiple outcome criteria. Multivariate studies to

determine which factors relate to changes in knowledge and attitude, behavioral change, as well as changes in incidence would help identify interactive variables which decrease the risk of child maltreatment. Identifying various approaches which are more effective with different age groups would contribute to the development of realistic strategies focused on specific target populations. The need for long-term follow-up of preventive efforts is crucial because programs cannot fully recognize their potential until populations have passed through critical developmental periods.

Although child abuse prevention research approaches have come a long way in the past two decades, the goal of reducing child maltreatment by at least 20% by 1990 will only be achieved when evaluation of prevention programs is taken as seriously as the ideas that formulate the programs.

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APPENDICES

APPENDIX A

**INFORMED CONSENT: TEENS AND TODDLERS
TREATMENT GROUP**

INFORMED CONSENT**Payne County Child Abuse Prevention Project**

The Payne County Child Abuse Prevention Project (known as **Teens & Toddlers**) is a community service for all children and families and operates under the auspices of the Payne County Health Department. There will be no charge for participation in the **Teens & Toddlers** program.

This program is aimed at the reduction of child abuse by achieving early identification of pregnant teens, providing a model for self care in the prenatal stage, assisting in self and child care in the postnatal stage, and providing parenting skills and environmental stability. You and your child are eligible to participate in this program until your child reaches the age of two.

Data will be gathered periodically through the administration of tests and other evaluation tools. Additional data from the Department of Human Services will be collected to assess the success of the grant. Confidentiality and anonymity will be maintained with regard to the reporting and publishing of any results. Data will be collected, coded and analyzed by personnel at Payne County Health Department and Oklahoma State University. Some of the data collected will be utilized for the purpose of dissertation research by Linda Burks, Research Coordinator for the project. (405/372-1979)

I have been informed that any questions I have concerning the research study or my participation in it, before or after my consent will be answered by Dian England or Jeannette Webster, 701 South Walnut, Stillwater, Oklahoma, 74074, (405/372-1721).

I understand that the possible benefits of my participation are, the reduction of child abuse potential, elevated self-esteem, and an increased knowledge of child development and parenting skills.

I have read the above Informed Consent. The nature, demands, and possible benefits of the project have been explained to me. I understand that I may withdraw my consent and discontinue participation at any time. I have had the opportunity to ask questions and they have been answered to my satisfaction. A copy of this consent form will be given to me.

I, _____, do hereby request and consent to the services of the Payne County Child Abuse Prevention Project.

Signature (Client) Date

Signature Date
(Parent/Guardian or Spouse if available)

Witness Date

APPENDIX B

**-INFORMED CONSENT: ROUTINE HEALTH CARE
TREATMENT GROUP**

INFORMED CONSENT

Payne County Child Abuse Prevention Project

The Payne County Child Abuse Prevention Project (known as **Teens & Toddlers**) is a research project aimed at the reduction of child abuse by achieving early identification of pregnant teens and operates under the auspices of the Payne County Health Department.

Data will be gathered periodically through the administration of tests and demographic information. Additional data from the Department of Human Services will be collected to assess the success of the grant. Confidentiality and anonymity will be maintained with regard to the reporting and publication of any results. Data will be collected, coded and analyzed by personnel at Payne County Health Department and Oklahoma State University. Some of the data collected will be utilized for the purpose of dissertation research by Linda Burks, Research Coordinator for the project (405/372-1979).

I have been informed that any questions I have concerning the research study or my participation in it, before or after my consent will be answered by Dian England or Linda Burks, 701 South Walnut, Stillwater, Oklahoma 74074, (405/372-1721).

I have read the above **Informed Consent**. The nature of the project and my participation as a comparison group have been explained to me. I understand that I may withdraw my consent and discontinue participation at any time. I have had the opportunity to ask questions and they have been answered to my satisfaction. A copy of this consent form will be given to me.

I, _____, do hereby request and consent to testing for the Payne County Child Abuse Prevention Project.

Signature (Client) Date

Witness Date

APPENDIX C

PROGRAM AGENDA PRENATAL

**PROGRAM AGENDA
PRENATAL**

DATE		CODE # _____
_____	1. REFERRAL RECEIVED	_____
_____	2. INITIAL CONTACT ENROLL IN WIC	
_____	3. VISIT BY PRIMARY PROFESSIONAL EXPLAIN PROGRAM SIGN INFORMED CONSENT COLLECT DEMOGRAPHIC DATA INITIAL ASSESSMENT	
_____	4. ADMINISTER CAP INVENTORY	
_____	5. DEVELOP SERVICE PLAN PRESENT PRENATAL KIT	
_____	6. PRENATAL EDUCATION MOTHER/BABY NUTRITION EXERCISE DURING PREGNANCY FIRST TRIMESTER SECOND TRIMESTER THIRD TRIMESTER TALKING TO YOUR DOCTOR STRESS MANGEMENT GOAL SETTING CHOOSING BABY CLOTHES/EQUIPMENT BREASTFEEDING OR NOT? SELF-CARE DURING PREGNANCY SELECTING DAY CARE SMOKING/DRUG USE DURING PREGNANCY MARRIAGE FATHERING BUDGETING FINANCES SINGLE PARENTING *OTHER INFORMATION UPON REQUEST	
_____	7. HOSPITAL DELIVERY ROOM VISIT COMPLETE BIRTHING INFORMATION	

APPENDIX D

PROGRAM AGENDA POSTNATAL

PROGRAM AGENDA
POSTNATAL

DATE	CODE # _____
_____	FIRST MONTH: INITIATE NEW SERVICE PLAN DELIVER INFANT CAR SEAT BATHING YOUR BABY AUTHORIZE EMERGENCY CARE
_____	SECOND MONTH: VERIFY DPT/POLIO IMMUNIZATION CHILD CARE INSTRUCTION
_____	THIRD MONTH: MOTHER/INFANT EXERCISES FAMILY PLANNING
_____	FOURTH MONTH: VERIFY DPT/POLIO IMMUNIZATION DISCIPLINE/PUNISHMENT: DIFFERENCE READMINISTER CAP INVENTORY
_____	FIFTH MONTH: CHILD PROOFING THE HOME ENCOURAGING MOTOR DEVELOPMENT
_____	SIXTH MONTH: VERIFY DTP IMMUNIZATION DEVELOPMENTAL SCREENING HOW CHILDREN LEARN
_____	SEVENTH MONTH: UPDATE SERVICE PLAN IMPORTANCE OF PLAY
_____	EIGHTH MONTH: TOYS TO MAKE FOR INFANTS
_____	NINTH MONTH: EFFECTIVE DISCIPLINE
_____	TENTH MONTH: WEANING
_____	ELEVENTH MONTH: CHILD NUTRITION
_____	TWELFTH MONTH: DEVELOPMENTAL SCREENING SPEECH/HEARING SCREENING

**PROGRAM AGENDA
POSTNATAL**

DATE

CODE # _____

THIRTEENTH MONTH: MEALTIME WITH CHILDREN

FOURTEENTH MONTH: PARENT/CHILD COMMUNICATION

FIFTEENTH MONTH: VERIFY IMMUNIZATIONS

SIXTEENTH MONTH: STRESS MANAGEMENT

PROGRAM EVALUATION COMPLETED

APPENDIX E

PROGRAM EVALUATION

PROGRAM EVALUATION

1. WAS THE TEENS AND TODDLERS PROGRAM
HELPFUL TO YOU:

YES ___ NO ___ SOMEWHAT ___ UNCERTAIN ___

COMMENTS: _____

2. WHAT SERVICES WERE THE MOST HELPFUL:
(ALL APPLICABLE)

___ HOME VISITATIONS	___ HEALTH CLINIC STAFF
___ PRENATAL EDUCATION	___ PRENATAL CLINIC
___ POSTNATAL EDUCATION	___ WELL CHILD CLINIC
___ WIC CLINIC	___ IMMUNIZATION CLINIC
___ FAMILY PLANNING	___ MATERNITY CLINIC
___ ADOLESCENT CLINIC	___ NUTRITION CLINIC
___ VIDEO TAPES	___ BOOKS/HANDOUTS

3. WHAT SERVICES WERE THE LEAST HELPFUL:
(ALL APPLICABLE)

___ HOME VISITATIONS	___ HEALTH CLINIC STAFF
___ PRENATAL EDUCATION	___ PRENATAL CLINIC
___ POSTNATAL EDUCATION	___ WELL CHILD CLINIC
___ WIC CLINIC	___ IMMUNIZATION CLINIC
___ FAMILY PLANNING	___ MATERNITY CLINIC
___ ADOLESCENT CLINIC	___ NUTRITION CLINIC
___ VIDEO TAPES	___ BOOKS/HANDOUTS

4. HOW COULD THE PROGRAM HAVE BEEN IMPROVED:

5. WHAT SHOULD BE LEFT THE SAME: _____

6. OTHER COMMENTS: _____

2
VITA

Linda Kaye Burks

Candidate for the Degree of
Doctor of Philosophy

Thesis: RELATIONSHIP BETWEEN ADOLESCENT PARENTAL CHILD
ABUSE AND PARTICIPATION IN A PREVENTION PROGRAM

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