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A Cross-Sectional Comparative Study of Two Groups of Primiparous African-American Adolescent Mothers

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A CROSS-SECTIONAL COMPARATIVE STUDY OF TWO GROUPS OF PRIMIPAROUS AFRICAN-AMERICAN ADOLESCENT MOTHERS

by

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VITA

The author, Dianne Stone, is the daughter of Ann (Wexler) and Irving Fishlove. She was born May 11, 1942 in Chicago, Illinois.

Her elementary and high school education was obtained in the public schools of Chicago. She received a Bachelor of Science degree in Education from the University of Illinois, Champaign/Urbana in June, 1963. In June, 1976 she completed the requirements for a Master of Arts degree in Special Education from Northeastern Illinois University.

Ms. Stone has been employed by the Chicago Board of Education for several years. She worked in many capacities, from elementary school teacher to special education specialist. She currently works for the Chicago Board of Education at the Cook County Juvenile Temporary Detention Center School as a psychologist.

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> The girl who has an illegitimate child at the age of 16 suddenly has 90 percent of her life's script written for her. She will probably drop out of school even if someone else in her family helps to take care of the baby; she will probably not be able to find a steady job that pays enough to provide for herself and her child; she may feel impelled to marry someone she might not otherwise have chosen. Her life choices are few, and most of them are bad. Had she been able to delay the first child, her prospects might have been quite different.
>
> A. Campbell (1968, p. 238)

CHAPTER I

INTRODUCTION

Adolescent pregnancy is on the rise (Polit, Kahn, & Stevens, 1985). Many believe it is reaching epidemic proportions. It is a cycle that continues and seems to have no end in sight. It is well documented that rates of premarital sexual experiences and pregnancies continue to grow (Ladner, 1987; Taborn, 1987). That many states and the District of Columbia addressed these issues through comprehensive proposals between 1982 and 1988 is proof of the concern with the problems associated with teenage pregnancy and early childbearing (Rosoff, 1989). More and more African-American adolescents are opting to rear their babies and fewer are marrying, giving rise to an unprecedented number of single parents. Although many claim

that teenage childbearing continues to grow, Henshaw and Van Vort (1989), present figures indicating that while overall adolescent childbearing has been virtually unchanged since 1980, the rate of African-American adolescent mothers, still remains two to three times higher than for white teenage mothers. A review of the literature indicates that there has been much written about adolescent pregnancies and childbearing in the last ten years. The statistical patterns are clear. In 1985 out of 1,031,000 pregnancies in adolescents aged fifteen through nineteen, 477,710 ended in live births. Of these, almost 500,000 live births, fully 48% were born to unwed mothers (Henshaw & Van Vort, 1989).

Young people reach reproductive maturity at an earlier age than a generation ago. Overall, the average age of menarche has decreased approximately three months per decade. It is interesitng to note that this figure corresponds with earlier reproductive development of boys (Turner, 1962 as cited in Moore et al., 1986). The decreasing age of maturation places children at greater risk for earlier sexual experiences and possible childbearing. In spite of this earlier physical development, there has been no data reported in the literature indicating adolescents are maturing either psychosocially or cognitively at an earlier age. That is to say that no correlation has been found between early biological maturation and cognitive development (Orr, Brack, &

Ingersol, 1988). It is because of this disparity between the adolescent mother's ability to have a child and her lack of mature cognitive development, that calls for an intervention program that will help the adolescent mother develop the appropriate cognitive and psychosocial skills that will increase parenting knowledge and a positive maternal attitude.

For the most part, there appears to no longer be a great stigma attached to being an unmarried single mother. This raises many new issues for the community and the local schools. Because of the previously mentioned cycle of early mothering and the immature social skills in adolescent mothers, they more and more frequently are unable to adequately nurture and provide a material means of support for their children (Gabriel & McAnarney, 1983). It is expected that the infants of young mothers will, at increasingly significant rates, become the slow learner, the behavioral problem, the abused and neglected children of tomorrow unless this maladaptive cycle is stopped.

Statement of the Research Problem

Adolescents who become parents during their early teens experience an increasingly difficult life cycle; they are more likely to experience health risks for both mother and child and most of them encounter a disruptive effect on their education, which is likely to limit both future employment opportunities and income potential, giving rise

to yet more adverse effects on the social and psychological development of the adolescent, such as increased stress and isolation (Anastaslow, 1982; Holman & Arcus, 1987). In addition, the negative effects of the low ego strength and low self-confidence in the young mothers are demonstrated by the intolerance, impatience, and frequent use of physical punishment directed at their offspring which only furthers the maladaptive life cycle of damage and despair (Witt, 1984).

Poverty among families with young children has been increasing. Presently, 50% of non-white families live at or below the poverty level (Wilson, 1987). This poverty has been found to be associated with both single adolescent parents and social isolation (Wilson, 1987). Poor economic conditions, coupled with adolescent parenting, appears to increase the likelihood of poor academic performance on the part of the child. In addition, it also raises the frequency of child abuse and neglect on the part of the single parent (Halpern, 1990).

Family Focus, a family support program with six sites located in the Chicago area, was designed to arrest this cycle of immature mothering skills. The Family Focus program teaches young mothers how to trust, love, and nurture in order to better provide these intangibles to their offspring. They offer a supportive staff in headquarters located close to the adolescent mother's home

where parenting classes are held. The Family Focus organization is attempting to provide help in preventing future problems for both the young mothers and their children.

The central question to be addressed in the study at hand is: How do parenting profiles of adolescent mothers who attend an intervention program (parenting classes) compare with adolescent mothers who dropped out of the program? The premise is that both groups were sufficiently motivated to begin the program (attend prenatal classes) during pregnancy. What has caused some to stay in the program and others to drop out? Do the young women who choose to leave the program have enough inner resources--or perhaps a strong support system--in which to learn child rearing skills without the program, or was the program deficient with respect to providing a treatment that would reduce the many stressors facing these particular teens? Is there a type of personality or burden that is constant within this group of dropouts that, if discovered, can be addressed by the Family Focus program to encourage adolescent mothers to remain in the program?

A review of the literature provided a wealth of information on adolescent pregnancy. However, few, if any, studies have been conducted to document findings on adolescent mothers who stay in a parenting program compared to those who drop out and receive no other outside agency

assistance. The possibility of recognizing and identifying potential adolescent mother dropouts may allow interventions to be planned and implemented by Family Focus with hopes of preparing these adolescent mothers for their new roles.

Significance of the Research Project

Since teenage parenting is one of the major social problems affecting adolescents today, there is a need to conduct follow-up studies on adolescent mothers who remain in or choose to leave parenting education programs following childbirth (Hogan, 1984). Basic to the complex problems and issues related to teenage mothering is that the mother herself may not have reached her full maturity, development, and identity prior to giving birth to her child (Witt, 1984). Adolescence is often considered to be a crisis period in the developmental process. Erikson (1963) stated that "Adolescence is the age of the final establishment of a dominant positive ego identity" (p. 306). If unable to reach this dominant positive ego identity, according to Erikson, role diffusion characterized by run away, acting out, or drop out behavior of some form may result. Adolescents go through a psycho-social moratorium and yet it is during this so called moratorium from obligation that youngsters who parent early are forced not only to meet their own obligations but to take on the responsibility of another life (Hogan, 1984).

A mother's feelings about herself is assumed to be a

very important factor in how her infant matures and develops. The adolescent mother's immaturity and educational level can limit her resources for promoting infant development. Research findings indicate that adolescent mothers demonstrate significantly less adaptive mothering behavior than women who delay childbearing (Mercer, 1983).

It is important to note that it would be unfair to assume that all adolescent mothers cannot properly rear their children. Many young mothers with positive family support systems are reportedly able to give their offspring affirmative mothering. However, the majority of them appear to be unable to provide a strong family support environment (Skerry, 1983).

Society has been slow to respond to the problems of adolescent mothers. Agencies that serve teenage mothers have increased from approximately 250 in 1970 to about 1500 in 1987 (Dunston, Walton-Hall, & Thorne-Henderson, 1987). These programs, most often located in urban communities, tend to serve mainly African-American low income adolescent mothers. Most of these programs are narrow in focus. They provide prenatal medical care, daycare, and/or job training. Many agencies have programs that are geared to crisis intervention. Such programs, according to Furstenberg (1976), tend to have short-term effects. Many programs provide help during pregnancy but terminate their services

when the mother delivers (Dunston et al., 1987). However, it is at this time when the most damaging consequences may occur. The adolescent mother may not be prepared for the energy and commitment it takes, or even have the knowledge necessary to rear the infant without some kind of social support.

In summary, the research project to be described below was designed to discover why some adolescent mothers from ostensibly similar backgrounds choose to drop out of a parenting education program while others choose to remain in the program. The comparative profiles of the adolescents in the sample selected for study were acquired by using a combination of an interview and completion of three instruments. The interview was designed to determine if the groups, in fact, differed in terms of demographics as well as descriptive data. A instrument that measures parenting stress was used to determine what, if any, differential characteristics existed across groups with respect to the stressors associated with their child's characteristics as well as the mother's characteristics. Another issue which was addressed was the mother's level of impulsivity. Were the mothers who dropped out of the program more impulsive that those that remained in the program and, if so, was this impulsivity a major reason for dropping out? The next

question to be addressed in the study was an assessment of the mothers' perceptions of the relationship between caregiving practices and developmental outcomes. The final question dealt with the overall parenting profiles, using all the above measures. Were there differences between the profiles of the young mothers who choose to remain in a parenting education program and those who dropped out.

CHAPTER II

LITERATURE REVIEW

In this chapter a review of the latest research on early parenting is presented. A special attempt is made to discuss trends as well as the possible repercussions of adolescent childbearing, that include health issues and interruption of education. The economic issues facing young, single mothers is explored, along with the social and psychological consequences of teenage pregnancy. A discussion of intervention programs is followed by a summary and a listing of research questions to be addressed in the study at hand.

Adolescent Pregnancy: Incidence and Trends

Research on adolescent pregnancy has proliferated in the past decade. The adolescent birthrate in the United States is among the world's highest (Henshaw & Van Vort, 1989). Some social scientists estimate that, if sexual activity continues at the present rate, 40% of all fourteen year olds in the United States will be pregnant at least once before they are twenty. This figure, despite recent decreases among African-Americans, will be exponentially greater for African-Americans than for white adolescents (Hamburg, 1986).

According to 1989 Census figures, African-Americans comprise 15.5% of all females between the ages of 10 and 19. However, they experience 54% of the live births to all unmarried women under 20 years of age (Statistical Abstracts of the United States, 1991). For African-American adolescents in the United States, 17 years or younger, the current birthrate is 237 per 1000 compared to 71 births per 1000 for white teenagers (Taborn & Battle, 1984). Nearly 60% of all African-American children are born out of wedlock. Indeed, practically half of all African-American adolescent females become pregnant (Battle, 1987). In 1987, 67.4% of African-American births were to adolescents between the ages of 15 and 17 (National Center for Health Statistics [NCHS], 1987).

Although birthrates for African-American adolescents have decreased over the past few years, their rates still remain far higher than those of white adolescents. Scott, Field, and Robertson (1981) report that this leveling off applies to all but the youngest age group, adolescents between the ages of 10 to 14 years. Studies appear to indicate that the younger the adolescent, the smaller the birthrate decline (Scott et al., 1981). In 1985, 30,000 females under the age of 15 conceived resulting in 11,000 births, 15,000 abortions, and 4,000 miscarriages. During that same year over one million teenagers in the United States experienced a pregnancy. These pregnancies resulted

in 534,000 births, 434,000 abortions, and approximately 150,000 miscarriages and other fetal deaths (Henshaw, Kenny, Somberg, & Van Vort, 1989). Of the reported abortions, 362,000 who aborted were unmarried. Forty-one percent of white unmarried adolescents ended their pregnancies through abortion while only 5.8% of African-American adolescents had abortions (Taborn, 1987).

Although the abortion rate for African-Americans did increase during the years the federal administration was supporting such programs, this increase was surprisingly minimal (Washington, 1982). Washington (1982) states that "Black teens come from a cultural ethos that generally disapproves of abortion, and I would speculate that religious beliefs and reverence for life form the basis of these sentiments" (p. 18).

Another factor which contributes to the increase in African-American adolescent parenting is that African-Americans tend not to make formal adoption plans for their children (Scales & Gordon, 1979 as reported in Washington, 1982). In the African-American community keeping the child is the traditional solution to becoming a single parent. The African-American community does not look down upon the illegitimate child (Washington, 1982 as reported in Taborn, 1987). Historically, African- Americans have expressed great tolerance and acceptance of teen pregnancy. Decades ago marriage was an answer to this problem. If marriage did

not occur, African-Americans were more accepting of the teen mother and more willing to assist her in efforts to reorganize her life in a positive fashion (Ladner, 1987).

According to Ladner, very few African-American teenagers make adoption plans for their babies even though the majority of African-American teens who become pregnant are poor and have little of the economic support that is necessary in order to provide for their children. Most African-American teen parents feel that economic and other hardships they face, due to the birth of the child, are the harsh facts of a lifetime of economic need and a sense of not being able to control their own lives. Ladner stated, "The expectation, enforced by cultural and religious standards among Black poor is that out-of-wedlock children are not to be placed in adoption agencies, but are to be kept in the family and community regardless of the hardships" (p. 56). Recently Sandven (1990) noted that more African-Americans are making formal adoption plans for their children because of the increased concern of cultural heritage and diversity. Formal adoption plans can include guarantees that the infant will be raised by a family with the same ethnic background.

Informal adoption traditionally has been the response of the African-American community to the problem of illegitimate teenage pregnancy. The usual method includes the absorption into the already existing families of the

illegitimate child of a daughter of that family (Sandven, 1985). This extended caregiving among African-Americans appears to be well documented. Presser (1980) found that 25% of African-American adolescent mothers were living as single parents with their mothers. A recent study, although small in number, on the consequences of adoption revealed fewer negative consequences for those who made an adoption plan for their children compared to those who choose to raise their children themselves (McLauglin, Manninen, & Winges, 1988).

Eleanor Holmes Norton, an attorney and previous Chairperson of the Equal Employment Opportunity Commission, wrote, "The strong growth of female-headed households is the central problem in Black families and why poverty is so lasting" (1984, p. 20). In 1985 she added, "Today well over half of Black children are born to single women. Why are female-headed households multiplying now, when there is less discrimination and poverty than a couple of generations ago when the Black family life was stronger?" (p. 43). The majority of these single women are between the ages of 15 and 17. The risk of early sexual activity and possible pregnancy is greatest among young people who lack educational ambition and lack of family support (McAnarney & Schreider, 1984).

Consequences of Early Childbearing

Of the many consequences of early childbearing perhaps

the most significant are the greater health risks to both parent and child. These risks are manifested in many ways.

Higher Mortality Rates. First, mortality rates for children of adolescent mothers are extremely high. Children of adolescent mothers, 17 years or younger, are twice as likely to die as children of older women. (McCormick, Shaperio, & Starfield, 1984).

Secondly, more illness and injuries are experienced by children of adolescents (Wadsworth, Burnell, Taylor, & Butler, 1983). This may suggest that these young mothers are not prepared to provide adequate care and supervision to their infants.

Low birth weight is another problem often associated with the infants of adolescents. McAnernay and Hendee (1989) suggest that early prenatal care and regular attendance at prenatal classes reduce not only morbidity to adolescent mothers and their children but that the incidence of low birth weight can also be diminished.

Lower Educational Attainment. When a pregnant adolescent makes the decision to have her baby an important question comes into focus: Will she return to school? The theory that early childbearing is associated with significant educational loss has received much support in the literature (Anastaslow, 1982; Scott, Field, & Robertson, 1981; Stuart & Wells, 1982). It has been reported that fewer than half the adolescents who became mothers between

the ages of 13-15 graduated from high school (Alan Guttmacher Institute, 1981).

Teenage mothers are more likely to drop out of high school, even when compared with women of similar socioeconomic background, race, and academic aptitude who put off childbearing (Card & Wise, 1981 as cited in Furstenberg, Brooks-Gunn, & Morgan, 1987). However an interesting study by Hayes (1987) reports that African-American females suffer less of an educational disadvantage from adolescent childbearing than their white peers. As stated previously, adolescent parenthood is much more common among African-Americans and the social mechanisms for dealing with this pregnancy and the child are better established in the African-American community. This acceptance of early childbearing carries over to the local high schools where young pregnant students are accepted with little social stigma (Boxill, 1987).

The importance of continuing her education impacts not only on the adolescent mother and her future in the job market but also, according to research, has an equally important impact on the baby. For example, an adolescent mother's immaturity and educational level can limit her resources for promoting infant development. Research indicates that adolescent mothers demonstrate significantly less adaptive mothering behavior (Mercer, 1983). The offspring of adolescents who stay in school seem to have a

better chance of achieving in school themselves.

Belmont, Cohen, Dryfoos, Stein, and Zajac (1981) found that the most important factor explaining variance in a child's intelligence was the educational levels of the parents. Research indicates that school-age parents have a particularly high risk of dropping out of school (Haggstrom, Kanouse, & Morrison, 1983). This early interruption of schooling may be the reason for the poor academic achievement of so many young children of adolescent parents.

The children of adolescents who stay in school appear to have a better chance of a positive school experience (Franklin, 1988). This is further substantiated by Moore, Simms, and Betsey's (1986) research where they tested children of young mothers using the Peabody Picture Vocabulary Test. The results indicate that children who score higher have mothers who continue their schooling after giving birth. Moore, et al.'s assumption is that mothers with higher education will have a greater propensity for stimulating interactions with their infants.

A study of African-American mothers who reside in low-income housing found that those who had not completed high school were less interested in their child's school work, had fewer books in the house and took their children on outings, such as to the museum, zoos, and parks less frequently (Jackson, 1981; Wach & Gruen, 1982). This lack of interest in school work and enrichment activities appears

to negatively impact on the child's future cognitive development and academic success.

Adolescents who have children tend to have less education than adolescent women who delay childbearing. Moore, Hofferth, and Wertheimer (1981) reported that when factors such as family background, educational goals, and age at marriage were controlled statistically, young women who had a first birth at age 15 or younger were found to have completed almost two years less school than young women who were still childless at the age of 24. Other studies have shown that adolescent mothers may delay their schooling for many years (Hogan, 1984). In a five year follow up study by Furstenberg et al. (1987) it was discovered that 50% of adolescent mothers had graduated from high school; ten years later 67% had completed their high school education. Adolescent mothers are less likely to finish high school while still in their teens which in turn contributes to their lack of economic independence.

Economic Consequences of Early Childbearing

The economic situation today continues to create hardships. More and more disadvantaged persons are beginning to turn to others for help. In order for adolescent mothers to survive, this means seeking support from whatever options are available (Hogan, 1984). For the African-American adolescent mother this support appears to come from the government and the mother's family.

Most African-American adolescent mothers live with their parent(s) and depend on them for financial assistance (Brown, 1982). In addition to familial support, subsidies from the government have been available to help lessen the burden of early pregnancy.

The William T. Grant Foundation in New York revealed that in 1985, 75% of families headed by women under 25 years of age were living in poverty. Almost half of all African-American children are partially supported by government programs (Battle, 1987). The lack of education among young parents often results in limited opportunities to gain skills needed to compete in society. Largely because of educational deficits, teenage parents are frequently unable to get jobs paying above the minimum wage and their family incomes tend to be much lower than those families with more education. The probability that the teenage mother will bring up her child in a home with no father present is another reason why income is low (Singh & Wulf, 1990).

Furstenberg, Brooks-Gunn, and Chase-Lansdale (1989) reinforces this conclusion with more recent research. They report that because of their educational deficit, teenage mothers are less likely to find stable and reasonably well paying jobs and are therefore more likely to rely on public assistance than women who have put off childbearing. Furstenberg further finds that early childbearing is a strong predictor of long-term welfare dependency. Finally,

she reports that most of the adolescent mothers who are on public aid eventually begin to work when their youngest child reaches school age. This coincides with the findings of the Baltimore Report, a longitudinal intergenerational study of 300 teen mothers and their children (Furstenberg et al., 1987). It was discovered that dependence on welfare dropped as the women matured.

It appears as if the economic gap between early and later childbearers may lessen over time. However, it must also be taken into consideration that the women who took part in the Baltimore study were more stable than the women who could not be located and were part of the original study. The women who could not be located for the follow-up studies may be the ones who were transient because of their poverty level and this may have had a dramatic effect on the statistics. Most studies indicate that early childbearers will not become as economically independent as the women who put off parenthood until a later age (Furstenberg et al., 1989).

Colletta and Lee (1983) asserted that welfare dependent families pass down dependency values to their children. Such values are in contrast to society's values of hard work and independence. This view is strengthened by Bowen, Johnson, Wulcan, Stangner, and Richman (1985) who interviewed 493 adolescent mothers on welfare and discovered that growing up on welfare was a strong predictor of long-

term welfare for themselves and their offspring. Testa, in a 1987 study, also documented this intergenerational transmission of welfare dependence among adolescent mothers on welfare.

In order to decrease this cycle of welfare dependency among adolescent mothers, an intervention program can play a major role. In addition to teaching parenting skills and providing a drop-in center where frustrated mothers may meet, Family Focus strongly encourages the mothers to stay in school. Perhaps by furthering their education, young mothers will have skills with which to enter the job market and impart to their children a sense of pride at being economically independent.

Moore, Hofferth, and Wertheimer (1979) explored the association between young single adolescent mothers and governmental dependency in their research on early childbearing and the Aid to Families with Dependent Children (AFDC) Program. They investigated the amount of support provided to households in which the mother was 19 years or younger at the time of delivering her first child. The estimated expense for teenage childbearing was almost half of the total AFDC budget. Among the women receiving AFDC, 61% had their first child while in their teenage years. In homes not receiving AFDC only 35% had their first child while a teenager (Hogan,1984).

The majority of adolescent mothers stated they would

much rather work than receive aid if given the opportunity (Furstenberg, 1976). However, such obstacles to employment as lack of adequate day care, transportation, and basic skills along with the high unemployment rate make it extremely difficult for adolescents to obtain or maintain a steady job.

In today's economy adolescents face much higher rates of unemployment than adults; minority groups, in all categories, are more likely to be unemployed than their white counterparts and young women experience a higher rate of unemployment than young men (Durrah, 1982). In addition to these facts, AFDC eligibility requirements have been tightened. This has resulted in many families either being cut off from their support or at least having their benefits reduced ("What Reagan has in mind," 1981). The reduction of AFDC support and the possibility of termination from the program will likely cause psychological hardships for its recipients with the greatest impact being felt on young mothers, both African-American and white (Hogan, 1984).

Furstenberg (1976) reports that governmental support encourages early childbearing out of wedlock because it provides a means of added economic support for unmarried women. However, in a study conducted by Keefe (1983), it was suggested that women already receiving public assistance did not appear to be motivated by economics. Many of these young women chose to become pregnant because they believed

their relationship with the father of the child would become more permanent if she had his child.

Social and Psychological Consequences of Early Childbearing

Adolescent pregnancy initiates a chain of events which may result in long term disadvantages for the adolescent mother and her child. This chain of events creates diverse effects on the social and psychological well-being of adolescent mothers. Although little empirical research has been done to substantiate all of the consequences of early childbearing, few researchers would doubt they do exist (Foster & Miller, 1980).

Since adolescence is said to be a time of frequent turmoil, frustration, insecurity, and struggle, it is important to become familiar with some of the characteristics of this stage before attempting to recognize its relationship to adolescent mothers. Many adolescent girls respond very strongly and sensitively to the normal physical changes which occur during this time. When pregnancy is added to the normal maturational crisis of adolescence, stress and anxiety can only be increased. The pregnant adolescent must deal not only with the developmental task of adolescence, but also with the developmental task of pregnancy. Her ability to successfully meet these demands during this period will be directly related to her success in establishing an operable set of values and sense of identity (deAnda, 1983).

When pregnancy occurs during adolescence, the identity formation process is complicated. According to Erikson (1968), the formation of an individual sense of identity is a primary task for the adolescent. Erikson states that:

> The young person, in order to experience wholeness, must feel a progressive continuity between that which he has come to be during the long years of childhood and that which he promises to become in the anticipated future; between that which he conceives himself to be and that which he perceives others to see in him (p. 212).

For Erikson, the human organism develops through developmental phases each of which is characterized by a phase specific task or crises. In order for an individual to progress to the next developmental stage the task of the current stage must be resolved in a predominantly positive manner.

There are three main areas that makeup Erikson's concept of identity. The first is a sense of personal identity and refers to the individual's ability to see self as a separate and meaningful person with a sense of direction. Many pregnant adolescents go through intensified periods of emotional strain and confusion. They are generally unhappy, suffer from doubt, uncertainty of feelings, low self esteem, and helplessness (Brown, 1982).

The second area is that of group identity in which the adolescent forms a meaningful relationship with a peer group and subsequently obtains a sense of belonging. The tendency to form or become a member of a group occurs in early

adolescence; group membership looses its importance as the individual matures (Hogan, 1984).

Adolescents try to avoid being isolated. Pregnancy tends to dislodge them from forming these peer group relationships therefore not allowing them to pass through this developmental phase (Brown, 1982; deAnda, 1983). However, it could be argued that in the African-American community where pregnancy rates are high and it is not uncommon to see several pregnant girls in a high school setting, this phase may be completed relatively successfully. With the increased availability of programs for pregnant teens being offered in some areas today, the chances of forming a feeling of group identity become greater.

Erikson's third and final area refers to the specific meaning that life has for the adolescent. The adolescent must now be concerned with the tasks related to the successful pregnancy and outcomes, establishing life roles, and fulfilling her needs for intimacy and independence (Hogan, 1984).

In her struggle for independence, the adolescent mother discovers that she is back in a position of childish dependency on her family. Many adolescent mothers at this stage are torn between independence and submission to parents. Most are both psychologically and economically unprepared to depart from their home. Studies have shown

that many rely on their own families to provide economic assistance, child care services, and emotional support (Colletta & Lee, 1983) putting these adolescent mothers in a state of dependency they so wish to avoid. The entire family is drawn into the tumultuous life situation of the adolescent mother.

A young African-American mother often becomes an adult in the eyes of family members. This may cause conflict with siblings and within herself. The time and energy it takes to care for an infant leaves little time for the adolescent mother to define her own identity (Dunston et al., 1987).

Intervention Programs

Shirley Brown (1982) reports that social services to teenage mothers are not only inadequate, but are lacking in areas which are directly related to the future economic well-being of early childbearing females. She further states that public social services appear to be incompetent in changing the conditions that lead to poverty. These areas concern education, employment, home management and family planning.

More recently Polit (1989) reported that most parenting education programs or family service programs in the 1980's have become comprehensive in nature. According to Polit, these new programs offer a range of services which address that many needs of the early childbearer.

According to Roosa (1984), teenagers enrolled in parent

education classes become more knowledgeable in terms of child development but show little, if any, change in parenting attitudes. This suggests that although teenagers may acquire the necessary knowledge about developmental skills they are unable to put this information to work with any consistency. Perhaps it is the same cognitive-psychological mechanisms that caused these adolescents to not foresee the ramifications of their unprotected sexual behavior that also interferes with teenagers' ability to fully accept parental responsibilities. Roosa believes that an equal amount of time should be spent making teenage mothers aware of and accepting of the responsibilities of their children as is spent teaching them child development.

Hock and Lindamood (1981) have found that parenting attitudes appear to remain constant over time unless there is direct intervention. Therefore the attitudes of teenage mothers may have serious repercussions for the developing personalities of their offspring unless intervention programs are offered. Roosa stated, "The lack of an effect on parenting attitudes could prove to be an important oversight of alternative programs if the attitudes held by the teenagers prevent them from putting their newly acquired knowledge into practice" (p. 664).

Vukelick and Kliman (1985) report that teenage mothers rely most heavily on family to obtain information on child development. If the family background has been one of

deprivation and neglect, then that is what these adolescent mothers will impart to their children. The problem, of course, is that these are potentially unreliable sources of information. Many misconceptions about child care and child raising are passed on from one generation to another. Epstein (1980) reports that teenage parents tend to rely on their own mothers for information. Vukelick et al. (1985) agrees with this by stating that these young mothers tend to use family, friends, or neighbors as their major sources of information on childrearing skills. Few will use parent groups. She found that teenage mothers expected babies to perform certain behaviors earlier than child development experts suggest. These behaviors include signs that the baby is ready for toilet training, when a child will say NO to everything, and when a baby will sleep through the night. All of these behaviors can cause a young mother to become frustrated if she believes her baby is refusing to do what is expected. This can lead to abuse. At the other end Vukelick et al. (1985) found that teenage mothers underestimate the age of certain behaviors as well-such as when a baby will eat solid foods, likes to play peek-a-boo, when a child can be expected to do what he/she is told, when a baby can reach for objects, and when a baby can sit up without help. All of the aforementioned can lead to understimulation on the part of the mother-child relationship if the mother is unable to read the cues the

child is giving that he/she is ready for such play or interaction.

Vukelick et al. (1985) suggests that even with a child development course as part of an adolescent prenatal program, teenage mothers know little about what to expect from their infants. This points to the need for an ongoing parent education program while the infant is growing. This concurs with what Family Focus offers. In addition to the prenatal program which Vukelick feels is not adequate to prepare a young mother for the changing patterns of development, Family Focus offers an ecological approach to parenting education. According to Weissbourd and Kagan, 1989, children need to be understood within the context of their environment. This includes both the young mother and her child/children and the community in which they live. The continuing program enhances the adolescent mothers' knowledge of developmental skills as the child is developing and changing on a daily basis. This type of program also enables the young mother to learn what resources are available to both her and her children within the community.

The mother who is illinformed about normal child development may expect certain behaviors to be performed earlier than is typical. This mother may become an abusive parent, believing that her child could perform the behavior and is actively choosing not to do so (Feshback, 1980). If Feshback is correct that there may be a correlation between

inappropriate early expectations of certain behaviors and becoming an abusive parent, then continuing parent education programs for adolescent mothers are essential.

Gabriel and McAnarney (1983) identify a distinctive subculture which clashes with middle class expectations and agencies. Washington (1983) explains that because of the clash in values that has traditionally characterized the relationship between social and welfare agencies and their African-American clients, the African-American community has developed a natural suspicion of such agencies, which extends to family planning and teen pregnancy programs.

Family Focus appears to take into account what many programs lack. Vukelick et al. (1985) reported that educators and child development specialists must consider carefully their target population. Family Focus addresses this by having sites for their parenting programs in the neighborhoods in which their adolescent mothers reside. Family Focus also uses prior adolescent mothers to help run the program after a training period. Their parent education program is designed to fit the needs and interest of a particular group of mothers.

Summary and Research Questions

From what is reported above, it is clear that unplanned parenthood places many burdens and responsibilities on young mothers. The consequences of early childbearing are numerous and reflect the adolescent mother's ability to make

decisions and to cope with the circumstances confronting her. These decisions impact on not only the young mother but on the infant as well.

Educational setbacks, unemployment, lack of skills for appropriate childrearing, family or governmental dependency, and overwhelming feelings of frustration are consequences that are reportedly experienced by many adolescent mothers. Considering the many hardships that exist with poor adolescent mothers, the study described below was designed in an attempt to determine what, if any differences, exist between those mothers who choose to remain in a parenting education program and those who choose to drop out. The specific research questions to be addressed in the study are as follows:

1. What is the nature of the sample and do the two groups differ in terms of demographics and descriptive data (i.e., age, family structure, employment, school status, characteristics of baby's father, etc.)?

2. What are the differential characteristics of these mothers across groups with respect to the stressors associated with child characteristics, parent characteristics, and life stress events?

3. How do the two groups differ with respect to impulsivity?

4. How do the two groups differ in terms of their perceptions about the influences of infant caregiving

practices on infants present well-being and on maternal well-being?

5. How do parenting profiles of African-American adolescent mothers who attend Family Focus intervention program (parenting education classes) compare with African-American adolescent mothers who dropped out of the program?

CHAPTER III

METHODOLOGY

Overview

This study was designed to investigate similarities and differences between adolescent mothers who drop out of a parent education program and those who remain in the program. The study is essentially descriptive in nature. This section describes the research methodology, procedures, and instruments used for implementing the study.

Subjects

Subjects for both groups attended Family Focus prenatal classes. Group 1 consisted of 40 females who are presently in the Family Focus parenting education classes while Group 2 consisted of 40 females who had dropped out of the Family Focus program. The total number of subjects for the study was 80. Remuneration was provided to all participants.

All subjects were single mothers between the ages of 13 and 19 when they delivered. Their oldest child was no more than six. All subjects resided in the North Lawndale area of Chicago, Illinois. This area was chosen due to the high percentage of single parents residing in the area, the high (52%) school drop out rates, and the extremely high unemployment rate (50.5%). The median family income in the

area was reported to be in the 9th percentile of Chicago (Family Focus Fact Sheet). This type of population could probably be found in any high density urban environment. It should be noted that studies have been done comparing two groups of single mothers from different environments but because locale is believed to play such a large role in shaping behavior, it is difficult to ascertain whether the differences these single mothers face is due to intervention programs to which they are exposed or their natural environments (e.g. some being safer and more supportive). In the North Lawndale area, all the participants in the study attended one of three local high schools with approximately the same programs being offered in each.

Data Collection Procedures

The study was conducted with the cooperation and assistance of the Family Focus Organization of Evanston and Chicago. An announcement was made to all participants in the Family Focus parenting education program that a research project related to the program was currently underway. A short description of what was to be asked of volunteer participants as well as the time deemed necessary to complete the interview and the surveys was presented to the pool of possible subjects. In addition, the Family Focus counselor informed all potential subjects that modest remuneration would be given upon completion of the data collection session. Consent forms were given out. The

first 40 mothers to return the signed consent forms, served as subjects for Group 1. The subjects were contacted by a Family Focus worker and appointments were made for one meeting that lasted approximately two hours. A list of names of over 200 young women who had recently dropped out of the Family Focus parenting education classes was then compiled by the Family Focus coordinator and workers from the site contacted this potential subset of subjects. Letters were sent and phone calls were made to these potential dropout subjects. It should be noted that there was considerable difficulty in making contact with these subjects. The first 40 subjects who returned the signed consent forms were chosen to serve as participants in the dropout group (Group 2). Appointments were made and interviews were held at the Family Focus site. It should be noted that for the subjects in Group 2 (dropouts) transportation was provided, if requested, and baby sitting services at Family Focus were also offered.

Subjects were first interviewed utilizing a semi-structured interview, then they were asked to complete three surveys (Parenting Stress Index, Self Rating Scale for Impulsivity, Infant Caregiving Inventory - Revised). The interviewer read the items to all subjects to control for reading level.

Instrumentation

Four instruments were used in the study. A semi-

structured interview, the Parenting Stress Index (PSI), the Infant Caregiving Inventory-Revised (ICI-R), and the Student Self-Rating Scale for Impulsivity (IMP). These instruments were chosen on the basis of their saliency in differentiating between two groups of first-time mothers, their appropriateness for use among adolescents of varying ages, and their psychometric soundness.

The Semi-Structured Interview

This instrument consists of four sections: 1) a socio-demographic section; 2) a relationships with and influence of significant others section; 3) a history of coping section; and 4) a values: school, career, and life goals section. Items selected for use during the interview were based on research done by K.A. Sandven, 1985.

1. Socio-demographic Information: The first part of the interview consisted of the collection of information about basic descriptive variables relative to the adolescent and her family of origin.

2. Relationship With and Influence of Significant Others: The second segment of the interview was designed to assess the adolescents' own evaluation of the nature and quality of her relationship and the extent of the influences exerted on her decision-making by each of those involved. This portion of the interview was designed to explore the young mother's feelings toward her family and a focused delineation of her assessment of her relationships with her

mother, father or father figure, the baby's father, and friends.

3. History of Coping: In this section of the interview an attempt was made to determine whether coping styles can be defined. Here the young mother was asked to relate past attempts to cope with stress.

4. Values: School, Career, and Life Goals: In this final section of the interview an attempt was made to determine the importance of school to the mother, the value she placed upon graduation/GED, and further training. The respondents' career and life-goals were systematically documted. A copy of the interview may be found in Appendix A.

The Parenting Stress Index (PSI) (Abidin, 1983)

The PSI is a self-report questionnaire consisting of 120 questions and is designed to identify those stressors most commonly associated with parenting. Research on parenting stress (Bendell, Stone, Field, & Goldstein, 1987) suggests that three major factors contribute to the mother's level of stress (stressful life events, maternal characteristics, and characteristics of the child). The PSI is divided into three separate scales (Child, Parent, and Life Stress) that correspond to the three major sources of stress described above. The Child Scale (6 subscales) and the Parent Scale (7 subscales) consist primarily of statements with a 5 point Likert-type response format

(ranging from Strongly Agree to Strongly Disagree). Coded numerically, answers are summed into scores, with higher scores reflecting greater stress. The Life Stress scale consist of a list of 19 stressors that are rated as having occurred or not occurred during the past year. This later scale is optional and was not used in the investigation reported here. The PSI questions are considered to be comprehensible to anyone with a 5th grade reading level (Abidin, 1983). However, all items were read to the subjects.

Content validity of the PSI has been judged to be excellent with acceptable levels of concurrent validity (Lloyd, 1983) and discriminant validity (Bendell, Stone, & Field, 1989) with low income minority populations. Adequate reliability is supported by a high degree of internal consistency and test-retest reliability (Abidin, 1983, Zakreski, 1983). Appendix B has a copy of the Parenting Stress Index.

The Infant Caregiving Inventory-Revised (ICI-R) (Parks & Smeriglio, 1983)

This instrument consists of a 34 question paper and pencil measure of perceptions about the influences of infant caregiving practices on infants' present well-being and on maternal well-being. It was assumed that by systematically comparing the differences in perception of caregiving practices between Groups 1 and 2 would enable the Family

Focus Organization to responsibly evaluate the importance of including this type of information in their program in the future. The ICI-R offers the advantage of being normed on low income adolescent mothers as well as public health nurses, public health aides, and nursing students.

Internal consistency reliability for the revised ICI was calculated for the subscales and the total ICI scores for each socioeconomic group. The coefficient for the total score for low socioeconomic groups was .94 and all subscale coefficients were above .49 (Parks & Smeriglio, 1986).

The method by which items were developed provides evidence for their content validity. The pairing of infant caregiving practices with outcomes was based on findings in the research literature, child development theories, and expert opinion (Parks & Smeriglio, 1986). A copy of the Infant Caregiving Inventory is presented in Appendix C.

The Student Self-Rating Scale for Impulsivity (Wynne, 1984)

This scale is individually administered. Display cards for each response category (NEVER DESCRIBES ME, RARELY DESCRIBES ME, SOMETIMES DESCRIBES ME, USUALLY DESCRIBES ME, ALWAYS DESCRIBES ME) are placed on the table in front of the subject. The 22 statements are read orally to the subject and the subject then chooses the card that best describes herself. To score the scale, the total for all items is summed. The sum may be divided by the number of items answered in order to obtain a mean score that can be

compared to the original 5 point scale.

This instrument was chosen in order to compare the two groups of adolescent mothers threshold for impulsivity. It is clearly documented (Lineberger, 1987) that impulsive behavior can at times lead to child abuse. The Family Focus Organization is interested in knowing if the young mother who drops out tends to be more impulsive than those who remain in the program. Are these adolescents impulsive? If it turns out that these women tend to be impulsive then a training program could be implemented to teach these young women self-control strategies that could lead to a more patient and tolerant parenting style. Reliability for this instrument is good given the population. It was used with a clinical adolescent female population that was not known to be pregnant but had similar backgrounds to the subjects in this study. Reliability using Cronbach Alpha is .76 (Wynne, 1984). This measurement for impulsivity is exhibited in Appendix D.

CHAPTER IV

RESULTS

This chapter presents the data beginning with an age description of the sample. The second section includes the results of each analysis as it pertains to the first four research questions posed in Chapter Three. The third section covers the fifth research question. The final section deals with results of the ex-post facto analyses of the data set.

Age Characteristics of the Sample

The sample was a volunteer group of 80 African-American adolescents, 40 of whom were currently attending Family Focus parenting classes while the second group of 40 had dropped out of the same program. The number of adolescents in each age category for the in-program (Group 1) is presented in Table 1.

Table 1

Age of Group 1 at Interview

Age	N	Percent
15	3	7.5
16	8	20.0
17	11	27.5
18	12	30.0
19	6	15.5
Total	40	100 %
Mean 17.76	SD 1.20	

The ages of the adolescents who have dropped out (Group 2) are presented in Table 2.

Table 2

Age of Group 2 at Interview

Age	N	Percent
17	1	2.5
18	6	15.0
19	7	17.5
20	9	22.5
21	9	22.5
22	7	17.5
23	1	2.5
Total	40	100%
Mean 20.66	SD 1.42	

Although the mean ages of the two groups differ by approximately three years the mean age at delivery of the

first born for Group 1 is 16.33 years (see Table 3) while the age at time of first born for Group 2 is 16.94 years as shown by Table 4. Though non-significant, it is interesting to note the mean age at delivery of the first born differs by only six months.

Table 3

Age at Delivery of First Born (Group 1)

Age	N	Percent
14	5	12.5
15	11	27.5
16	11	27.5
17	7	17.5
18	6	15.0
Total	40	100%
Mean 16.33	SD 1.25	

Table 4

Age at Delivery of First Born (Group 2)

Age	N	Percent
13	1	2.5
14	4	10.0
15	8	20.0
16	7	17.5
17	9	22.5
18	6	15.0
19	1	2.5
20	4	10.0
Total	40	100%
Mean 16.95	SD 1.79	

The National Center for Health Statistics [NCHS], 1989 reports that in 1987 67.4% of African-American births were to adolescents between the ages of 15 and 17. This trend is consistent with the results of this study (see Tables 3 & 4) that reveals that the majority of births of the adolescent mothers were in the 15-17 year old range. Indeed, the 15-17 year olds account for 72.5% for Group 1 and 59.5% for Group 2.

The mean age of Group 2 when they dropped out of the program was 18.86 (see Table 5). In contrast, the mean age of the current participants as noted in Table 1 is 17.76 years.

Table 5

Age at Time of Dropping Out

Age	N	Percent
15	2	5.0
16	3	7.5
17	6	15.0
18	10	25.0
19	8	20.0
20	5	12.5
21	5	12.5
22	1	2.5
Total	40	100%
Mean 18.86	SD 1.69	

The sample's exposure to the program ranged from 6 months to 4 years. This exposure included prenatal participation. Table 6 depicts the length of participation of the participants who are currently in the program (Group 1) from prenatal through the present (date of interview).

Table 6

Exposure to the Program (Group 1)

Years	N	Percent
0-1	11	27.5
1-2	13	32.5
2-3	10	25.0
3-4	6	15.0
Total	40	100%
Mean 1.77	SD 1.09	

Table 7 shows the sample of drop outs from their entrance into the prenatal program to the date of exit.

Table 7

Exposure to the Program (Group 2)

Years	N	Percent
0-1	1	2.5
1-2	14	35.0
2-3	14	35.0
3-4	11	27.5
Total	40	100%
Mean 2.24	SD .955	

Age of the first born child to subjects in Group 1 ranged from one month to 46 months (see Table 8).

Table 8

Age of First Born at Interview (Group 1)

Years	N	Percent
0-1	20	50.0
1-2	7	17.5
2-3	9	22.5
3-4	4	10.0
Total	40	100%
Mean 1.37	SD 1.10	

The age of the first born in Group 2 ranged from 9 months to 82 months as shown in Table 9.

Table 9

Age of First Born at Interview (Group 2)

Years	N	Percent
0-1	1	2.5
1-2	4	10.0
2-3	6	15.0
3-4	15	37.5
4-5	10	25.0
5-6	4	10.0
Total	40	100%
Mean 3.67	SD 1.37	

The mean number of children of subjects in Group 1 at time of interview was 1.1 as shown in Table 10.

Table 10

Number of Children (Group 1) at Interview

# of Children	N	Percent
1	36	90.0
2	4	10.0
Total	40	100%
Mean 1.10	SD .30	

The mean number of children for Group 2 at time of interview was 2.1 as shown in Table 11.

Table 11

Number of Children (Group 2) at Interview

# of Children	N	Percent
1	11	27.5
2	17	42.5
3	9	22.5
4	2	5.0
5	1	2.5
Total	40	100%
Mean 2.13	SD .97	

However, at the time of drop out the Group 2 sample had 22.3% fewer children than they did at time of interview, as show in Table 12.

Table 12

Number of Children (Group 2) When Dropped Out

# of Children	N	Percent
1	19	47.5
2	17	42.5
3	3	3.0
4	1	2.5
Total	40	100%
Mean 1.65	SD .73	

Consequently, in comparing the number of children of the sample in Group 1, with the number of children of the subjects in Group 2, one sees that the dropouts had 52% more

children than the current participants.

The fact that there was a significant difference in the ages of the sample at the time of interview as well as the number of children borne by these adolescents became a major issue that will be systematically addressed later in this chapter. The initial premise that mothers in both groups would be approximately the same age and would have only one child was found to be false. Though great effort was made to find adolescent mothers who matched the original criteria for the drop out group, only seven drop out mothers were 18 years or younger at the time of the interview. In addition, all seven of the drop out group who were 18 years or younger had two or three children.

Results Related to Research Questions One Through Four

Research Question One

The first research question asks what is the nature of the sample and do the groups differ in terms of demographics and descriptive data such as age, family structure, employment, school status, etc. The variables used to describe socio-economic and family background were reduced to 20 from the 168 questions asked in the interview. Due to the exploratory nature of the study, large numbers of items peripheral to demographic issues were asked. Many did not yield usable information because they were either not applicable or the questions were not understood by the sample population. The final 20 questions were chosen

because they were understood and answered by all the subjects as well as of theoretical interest to this researcher.

Of the 20 demographic variables used in the final analysis (see Table 13) seven (asterisk) were found to be significant at the .05 level for differences between the two groups.

Table 13

Twenty Questions Entered for Cross-Tabs

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* 1. Who do you live with?
2. Do you work?
* 3. Do you use drugs or alcohol when depressed?
* 4. Do you or your child receive some sort of Aid?
5. Does your dad or stepdad work?
6. Do you go to church?
7. Did your biological mother raise you?
8. Did any of your sisters become pregnant before age 19?
9. Did any of your brothers get a girl pregnant who was under the age of 19?
10. How many sisters and brothers do you have?
*11. Have you ever been sexually abused?
12. Who runs or ran your family?
13. Does your mom work?
*14. Are you in school now?
15. Have you ever been beat up?
16. Does anyone in your family get drunk a lot?
*17. Does anyone in your family use drugs?
18. How long was your dad or stepdad present while you were growing up?
*19. If not in school now what grade were you in when you dropped out?
20. How many times have you moved?

A significantly higher number of Group 1 mothers live with an adult as shown in Table 14 as opposed to alone or with a boyfriend as do Group 2.

Table 14

Who Do You Live With?

	Group 1 Col. #	Col. %	Group 2 Col. #	Col. %	Row Total Row	%
Adult	36	90%	21	52.5%	57	(71.3%)
Self	4	10%	19	47.5%	23	(28.8%)
Total	40	100%	40	100%	80	(100%)

Chi Square	Value	DF	Significance
Pearson	13.73	1	.00

Statistic	Value	Approx. Significance
Contingency Coeff.	.38	.00

There are 31 mothers currently in school of which 87% are in Group 1 (see Table 15). A total of 12 mothers received their high school diplomas. Of these, 75% are in Group 2 as opposed to just 25% in Group 1 as shown in Table 16. However, this may be a function of time in that many of the Group 1 mothers are too young to have graduated.

Thirteen subjects admitted to experiencing some form of sexual abuse and 92% of these were in Group 2 (see Table 17). Of the 13 subjects who reported family members having drug related problems 92% were in Group 2 as can be seen by Table 18.

Table 15

Are You in School Now?

	Group 1 Col. #	Col. %	Group 2 Col. #	Col. %	Row Total Row	%
Yes	27	67.5%	4	10%	31	(38.8%)
No	13	32.5%	36	90%	49	(61.2%)
Total	40	100%	40	100%	80	(100%)

Chi Square	Value	DF	Significance
Pearson	18.34	1	.00

Statistic	Value	Approx. Significance
Contingency Coeff.	.43	.00

Table 16

If Not in School Now What Grade When Left?

	Group 1 Col. #	Col. %	Group 2 Col. #	Col. %	Row Total Row	%
9-10	3	7.5%	7	17.5%	10	(12.5%)
11-12	7	17.5%	20	50%	27	(33.8%)
H.S. Grad.	3	7.5%	9	22.5%	12	(15%)
In School	27	67.5%	4	10%	31	(38.7%)
Total	40	100%	40	100%	80	(100%)

Chi Square	Value	DF	Significance
Pearson	25.92	3	.00

Statistic	Value	Approx. Significance
Contingency Coeff.	.49	.00

Table 17

Have You Ever Been Sexually Abused?

	Group 1 Col. #	Col. %	Group 2 Col. #	Col. %	Row Total Row	%
Yes	1	2.5%	12	30%	13	(16.3%)
No	39	97.5%	28	70%	67	(83.8%)
Total	40	100%	40	100%	80	(100%)

Chi Square	Value	DF	Significance
Pearson	11.11	1	.00

Statistic	Value	Approx. Significance
Contingency Coeff.	.35	.00

Table 18

Does Anyone in Your Family Use Drugs?

	Group 1 Col. #	Col. %	Group 2 Col. #	Col. %	Row Total Row	%
Yes	1	2.5%	11	27.5%	12	(15%)
No	39	97.5%	29	72.5%	68	(85%)
Total	40	100%	40	100%	80	(100%)

Chi Square	Value	DF	Significance
Pearson	9.80	1	.00

Statistic	Value	Approx. Significance
Contingency Coeff.	.33	.00

All of Group 2 receive Public Assistance whereas 75% of Group 1 receive similar assistance (see Table 19). The last significant variable concerned drug or alcohol use by the subjects themselves. Table 20 shows that of the eight

mothers who admitted using drugs or alcohol when depressed, 87.5% were in Group 2.

Table 19

Do You or Your Child Receive Public Assistance?

	Group 1 Col. #	Col. %	Group 2 Col. #	Col. %	Row Total Row	%
Yes	30	75%	40	100%	70	(87.5%)
No	10	25%	0		10	(12.5%)
Total	40	100%	40	100%	80	(100%)

Chi Square	Value	DF	Significance
Pearson	11.43	1	.00

Statistic	Value	Approx. Significance
Contingency Coeff.	.35	.00

Table 20

Do You Use Drugs or Alcohol When Depressed?

	Group 1 Col. #	Col. %	Group 2 Col. #	Col. %	Row Total Row	%
Yes	1	2.5%	7	17.5%	8	(10%)
No	39	97.5%	33	82.5%	72	(90%)
Total	40	100%	40	100%	80	(100%)

Chi Square	Value	DF	Significance
Pearson	5.00	1	.03

Statistic	Value	Approx. Significance
Contingency Coeff.	.24	.03

Other non-significant variables include the following: Research shows that adolescent mothers have a

disproportionally higher number of older sisters who were also early childbearers (Jones, Forrest, Henshaw, Silverman, & Torres, 1989). However, in this sample almost the same number of young mothers have older sisters who gave birth before the age of 19 as had not given birth (see Table 21).

Table 21

Did Any of Your Sisters Become Pregnant Before Age 19?

	Group 1	Group 2	Row Total
Yes	15	14	29 (36.3%)
No	17	13	30 (37.5%)
No Sisters	8	13	21 (26.3%)
Total	40	40	80 (100%)

Chi Square	Value	DF	Significance
Pearson	1.76	2	.42

Statistic	Value	Approx. Significance
Contingency Coeff.	.15	.42

Equal numbers of the mothers of the subjects in both groups work as presented in Table 22. Recent literature maintains that more unemployed African-American mothers tend to have children who are early childbearers (Battle, 1987) yet, in this sample, a majority of the mothers work.

Table 22

Does Your Mom Work?

	Group	Group 2	Row Total
Yes	22	22	44 (55%)
No	14	17	31 (38.8%)
Don't Know	4	1	5 (6.3%)
Total	40	40	80 (100%)

Chi Square	Value	DF	Significance
Pearson	2.09	2	.35

Statistic	Value	Approx. Significance
Contingency Coeff.	.16	.35

Eighty percent of Group 1 subjects were raised by their biological mothers, whereas 90% of Group 2 mothers were so raised (see Table 23).

Table 23

Did Your Biological Mother Raise You?

	Group 1	Group 2	Row Total
Yes	32	36	68 (85%)
No	8	4	12 (15%)
Total	40	40	80 (100%)

Chi Square	Value	DF	Significance
Pearson	1.57	1	.21

Statistic	Value	Approx. Significance
Contingency Coeff.	.14	.21

Research questions 2, 3, and 4 were as follows: 2) Are there any differential characteristics between the two

groups with respect to the stressors associated with both child and parent characteristics; 3) Are there differences in impulsivity across groups; and 4) Are there differences between groups with respect to the subjects' perceptions of the influences of infant caregiving practices on infants' present and future well-being as well as on maternal well-being.

Research Questions Two, Three, and Four

In order to determine if the three surveys described in Chapter 3 were reliable for the population, the Cronbach Alpha measure of internal consistency was used. Using this measure, overall reliability for the Parenting Stress Index, Child Domain was good. After removing one item the Standardized Item Alpha was .81. The Standardized Item Alpha for the Parenting Stress Index, Parent Domain was .76. No items were removed from this section.

Reliability for the Infant Caregiving Inventory was very good with the Standardized Item Alpha being .85 with no items removed. The Self-Rating Scale for Impulsivity, after removing 12 items, found the reliability only fair and received a Standardized Item Alpha of .63. This left 10 variables included in the analysis.

The PSI measures stress related to many factors including both the child's characteristics as well as the mother's. The higher the score, the more that stress is related to that particular area. All questions were

answered with regard to the first born. Table 24 shows the means and standard deviations for the variables chosen as the best discriminators on the PSI.

Table 24

Means and Standard Deviations for the PSI

Group Means Group	Relationship w/ Baby's father	Parental Health	Sense of Competence
1	19.23	11.76	33.73
2	22.43	13.70	33.10
Total	20.83	12.74	33.41
Std. Dev. Group	**Relationship w/ Baby's father**	**Parental Health**	**Sense of Competence**
1	5.17	2.58	5.74
2	5.23	4.11	6.68
Total	5.42	3.54	6.19
Group Means Group	**Child Reinforcing Parent**	**Child Dis-tractibility**	**Child Demanding**
1	10.85	28.93	21.10
2	11.75	28.18	22.35
Total	11.30	28.55	21.73
Std. Dev. Group	**Child Reinforcing Parent**	**Child Dis-tractibility**	**Child Demanding**
1	2.89	4.41	4.65
2	3.18	3.30	5.78
Total	3.05	3.89	5.25

Group 2 experienced more stress related to their relationship with their first born's father, more health problems and felt their first born placed many demands on them. Group 1, in contrast, felt more stress in their sense of competence in raising their first born and felt that

their first born was highly distractible.

The ICI-Revised is a parenting knowledge instrument which measures perceptions about the influences of infant caregiving practices on infants well-being and on maternal well-being (Park & Smeriglio, 1986). The higher the score the more the parent feels child caregiving practices influence both the child and the mother's sense of well-being. Although found to be non-significant in this study, Table 25 shows the means and standard deviations of the Summary Table variables for this instrument.

Table 25

Means and Standard Deviations for the ICI-R

Group Means	
Group	Physical Growth
1	1.00
2	1.08
Total	1.06
Stand. Dev.	**Physical Growth**
1	0.00
2	0.27
Total	0.19

The Self-Rating Scale for Impulsivity (IMP) was used to compare the two groups of adolescent mothers impulsive tendencies. While three variables met the criteria for entering the summary table (see Table 29) they did not reach a level of significance. Of some interest, however, is the fact that Group 2 was found to be more impulsive in doing

things on the spur of the moment while Group 1 was more impulsive in both liking work that involves competition and yelling along with the crowd during a sporting event.

A discriminant analysis was used to distinguish between groups with regard to the PSI, ICI-R, and IMP. The variables discriminate between groups of cases and predict into which group a case will fall based upon the value of these variables. A stepwise method was used to find a set of variables that maximizes discriminating power (SPSS, 1989).

The first variable selected is the one with the largest positive or negative correlation with the grouping variable, being in Group 1 or Group 2. This procedure is repeated for the second variable. After this, at each step the variables are examined for removal or entry. This continues until no more variables meet the criteria for entry or removal (Wilke, 1987).

Using the discriminant analysis on the PSI, the procedure entered six variables before reaching the level of tolerance insufficient for further computation (see Table 26). Relationship with the father of the first born child as a variable was entered first, followed by adolescent mother's health, adolescent mother's sense of competence, child reinforcing parent, child distractibility, and child demandingness (sense of bother).

Table 26

Summary Table PSI (Wilks' Procedure)

Step	Action Entered	Rem	Vars. In	Wilks' Lambda	Sig.
1	Rel. Bby, Dad		1	.91163	.0074
2	Mom's Health		2	.88493	.0090
3	Sense Comp.		3	.83403	.0031
4	Chd. Reinf. Parent		4	.81291	.0034
5	Chd. Distractibility		5	.79368	.0037
6	Chd. Demandingness		6	.78274	.0054

The function derived was significant as indicated in Table 27. The classification results show that 70% of the cases were correctly classified (see Table 28).

Table 27

Canonical Discriminant Functions (PSI)

Groups 1, 2

	Eigenvalue	Percent of Variance	Canonical Correlation
Function:	0.27756	100%	0.4661120

After Function	Wilks' Lambda	Chi Squared	DF	Sig.
0	0.7827396	18.372	6	0.0054

Even though statistically significant, the low eigenvalue suggests the results are not meaningful. The corresponding canonical correlation showed that 21% of the variance between the groups can be explained by the

function.

Table 28

Classification Results (PSI) Groups 1,2

Actual Group	# of Cases	Predicted Group Membership 1	2
1	40	29 (72.5%)	11 (27.5%)
2	40	13 (32.5%)	27 (67.5%)

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 70%

The same procedure was followed for the variable Infant Caregiving Inventory. The summary table, Table 29, indicates the variable selected for entry. Using this method only one variable was selected for entry before the F level of tolerance was reached.

Table 29

Summary Table ICI-R (Wilks' Procedure)

	Action Entered	Rem.	Vars. In	Wilks'Step Lambda	Sig.
1	Phys. Grwth		1	.96104	.0793

The function that was derived was not found significant.

The same procedure was used for the variable Self-Rating Scale for Impulsivity (IMP). The summary table, Table 30, indicates the variables selected for entry.

Table 30

Summary Table IMP. Wilks' Procedure

Step	Action Entered Rem.	Vars. In	Wilks' Lambda	Sig.
1	Yell w/ crowd	1	.96913	.1190
2	Do thgs, spur mmt	2	.95246	.1533
3	Like wrk w/ comp	3	.93836	.1818

Three variables were selected for entry before the F level for tolerance was reached. Again, the function that was derived was not found to be significant.

The results for the remaining analyses were determined by use of a multiple discriminate analysis using the RAO-V selection method. The variable that produces the largest increase in RAO's V is selected first, then the next largest until no more variables reach the entry criterion. RAO's V is a generalized measure of the overall separation between groups (SPSS, 1989).

Results Related to Research Question Five

To address Research Question 5, "How do the parenting profiles of the mothers who attend parenting education classes compare with the mothers who dropped out of the program?", several analyses were required. Because the age variables accounted for so much variance, it was decided not to include these variables except "number of children", because that variable was not solely dependent on the passage of time as were the others. Table 31 presents the

group means and standard deviations for these variables. A discriminant analysis of just the age variables was run to show the strength of these variables (see Table 32).

Table 31

Group Means and Standard Deviations

Age Variables						
Group Means						
Group	BABYAGE (months)	AGEDO (years)	KIDS	MOAGE (years)	EXP (mths)	MOAGED (years)
1	16.45	17.75	1.10	17.75	21.27	16.33
2	44.05	18.86	2.13	20.66	26.90	16.94
Total	30.25	18.34	1.61	19.21	24.09	16.63
Group Standard Deviations						
Group	BABYAGE	AGEDO	KIDS	MOAGE	EXP	MOAGED
1	13.17	1.20	0.30	1.20	13.03	1.25
2	16.38	1.69	0.97	1.42	11.46	1.79
Total	20.27	1.55	0.88	1.96	12.52	1.57

Table 32

Summary Table: Age Variables (RAO's V Method)

Step	Action Entered	Rem	Vars In	Wilks' Lambda	Sig
1	MOAGE		1	.44504	.0000
2	AGEDO		2	.28007	.0000
3	KIDS		3	.25879	.0000
4	EXP		4	.25232	.0000
5	BABYAGE		5	.24081	.0000
6	AGEDO		4	.24303	.0000
7	MOAGE		5	.23976	.0000
8	MOAGE		4	.24108	.0000

Step	Action Entered	Rem	RAO's V	Change in Sig.	V	Sig
1	MOAGE		97.27	.0000	97.27	.0000
2	AGEDO		200.50	.0000	103.24	.0000
3	KIDS		233.40	.0000	22.90	.0000
4	EXP		231.13	.0000	7.72	.0054
5	BABYAGE		245.90	.0000	14.77	.0001
6	AGEDO		242.95	.0000	-2.95	.0860
7	MOAGED		247.32	.0000	4.37	.0366
8	MOAGE		245.54	.0000	-1.78	.1817

Babyage and exposure to the program are coded in months. Age at dropout (AGEDO) and mother's age at delivery of first born (MOAGED) are coded in years. The number of children each subject presently has (KIDS) is coded in real numbers.

Of the six variables used, five remained an important factor. These were mothers' age at interview, age at delivery of the first born, number of children, exposure to the program, and the age of the first born child at time of interview. The function that was derived was found to be

significant at the .000 level (see Table 33). The eigenvalue associated with this function indicated the relative importance of the function to be strong. The corresponding Wilks' Lambda shows that 76% of the variance between groups can be explained by the variables loading on this function.

Table 33

Canonical Discriminant Functions

(Age Variables) Groups 1, 2

	Eigenvalue	Percent of Variance	Canonical Correlation
Function 1	3.15	100.0	0.87

	After Function	Wilks' Lambda	Chi-Squared	DF	Sig.
Function 1	0	0.24	108.12	4	0.0000

The classification results for the age variables show that using only these variables in/out group predictions would be with 98.75% accuracy as shown in Table 34.

Table 34

Classification Results

(Age Variables) Groups 1, 2

Actual Group	# of Cases	Predicted Group Membership 1	2
1	40	40 (100%)	0 (0.0%)
2	40	1 (2.5%)	39 (97.5%)

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 98.75%

The age variables accounted for so much of the variance there was little left to be distributed among the other variables. For that reason all the age variables were dropped except for the number of children because, while partially dependent on time, it also is dependent on the adolescents' choice.

The group means and standard deviations for the Parenting Profile are shown in Table 35.

Preliminary analysis indicated that the 10 variables presented in Table 36 together best describe what will discriminate between the two groups with regard to overall parenting profiles. As mentioned previously, the only age variable used was the number of children as that variable was not totally dependent on the passage of time as were the others. All 10 variables were entered into the summary table with none reaching the level of tolerance insufficient for further computation. These 10 variables are:

1) KIDS: How many kids do you have now?
2) INSCHOOL: Are you in school now?
3) WORK: Do you work?
4) MD: Did your biological mother raise you?
5) CF: Are you close to your family?
6) DRUGS: Does anyone in your family do drugs?
7) ADULT: Do you live with an adult or by yourself?
8) PSIPDT: The total score on the Parenting Stress Index, Parent Domain.
9) HPGP: Do the paternal grandparents of your first born help you?
10) TALKFR: Do you talk to a friend when you have a problem?

Table 35

Group Means and Standard Deviations

Parenting Profiles

Group Means

Group	KIDS	INSCHOOL	WORK	MD	CF
1	1.10	1.33	1.90	1.2	1.08
2	2.13	1.80	1.86	1.10	1.08
Total	1.61	1.56	1.88	1.15	1.08

Group Standard Deviations

Group	KIDS	INSCHOOL	WORK	MD	CF
1	0.30	0.47	0.30	0.41	0.27
2	0.97	0.41	0.36	0.30	0.27
Total	0.88	0.50	0.33	0.36	0.27

Group Means

Group	DRUGS	ADULT	PSIPDT	HPGP	TALKFR
1	1.98	1.10	132.98	1.60	1.48
2	1.73	1.48	142.60	1.53	1.43
Total	1.85	1.29	137.79	1.56	1.45

Group Standard Deviations

Group	DRUGS	ADULT	PSIPDT	HPGP	TALKFR
1	0.16	0.30	20.81	0.50	0.51
2	0.45	0.51	27.05	0.51	0.50
Total	0.36	0.46	24.46	0.50	0.50

Table 36

Summary Table Parenting Profiles

Step	Action Entered	Rem	Var. In	Wilks' Lambda	Sig.
1	KIDS		1	.66	.0000
2	INSCHOOL		2	.59	.0000
3	WORK		3	.56	.0000
4	MD		4	.53	.0000
5	CF		5	.51	.0000
6	DRUGS		6	.49	.0000
7	ADULT		7	.46	.0000
8	PSIPDT		8	.45	.0000
9	HPGP		9	.44	.0000
10	TALKFR		10	.43	.0000

Step	Action Entered	Rem	RAO's V	Sig.	Change in V	Sig.
1	KIDS		41.00	.0000	41.00	.0000
2	INSCHOOL		54.41	.0000	13.41	.0003
3	WORK		61.77	.0000	7.37	.0066
4	MD		68.07	.0000	6.29	.0121
5	CF		75.38	.0000	7.32	.0068
6	DRUGS		81.92	.0000	6.54	.0106
7	ADULT		89.93	.0000	8.01	.0046
8	PSIPDT		95.24	.0000	5.31	.0213
9	HPGP		99.42	.0000	4.18	.0409
10	TALKFR		102.61	.0000	3.19	.0742

The first variable, number of children reflects real numbers. The next six variables were coded 1=YES, 2=NO. The variable PSIPDT which is the Parent Domain total score on the PSI is the real number, with the higher score indicating greater stress. The last two variables, again, were coded 1=YES, 2=NO.

The function on the Parenting Profile was found to be significant at the .0000 level (see Table 37). The

eigenvalue associated with the function indicated the relative importance of this function to be good. The corresponding Wilks' Lambda showed that 56% of the variance between the groups can be explained by the variables loading on this function.

Table 37

Canonical Discriminant Functions

Parenting Profiles Groups 1,2

	Eigenvalue	Percent of Variance	Canonical Correlation
Function 1	1.32	100.0	0.75

	After Function	Wilks' Lambda	Chi-Squared	DF	Sig.
Function 1	0	0.43	61.29	10	0.00

The classification results show that 87.5% of the cases were correctly classified as shown in Table 38. Group 1 was correctly classified 97.5% of the time and Group 2 was correctly classified 77.5% of the time.

Table 38

Classification Results

Parenting Profiles Groups 1,2			
Actual Group	Number of Cases	Predicted Group Membership 1	2
1	40	39 (97.5%)	1 (2.5%)
2	40	9 (22.5%)	31 (77.5%)
PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 87.5%			

The standardized canonical discriminant function coefficients (see Table 39) show the relative importance of the variables on the function.

Table 39

Standardized Discriminant Function Coefficients for Parenting Profiles

Variable	Coefficients for Function 1 (Groups 1,2)
KIDS	-0.67
INSCHOOL	-0.44
WORK	0.31
MD	0.42
CF	0.32
DRUGS	0.27
ADULT	0.27
PSIPDT	0.31
HPGP	0.26
TALKFR	0.20

The measure loading most heavily is number of children, which was anticipated after preliminary analysis of all age associated variables. There was moderate loading on in school/not in school and whether the subject was raised by her biological mother. Subjects in Group 1 had fewer children, were presently in school, and were, with less frequency, raised by their biological mother. It is important to note that these 10 descriptive variables together will predict with 87.5% accuracy which adolescent mothers will stay in and which will drop out of a parenting education program.

Results of Ex-Post Facto Analyses

A new variable, NKIDS, was developed attempting to address the fact that the groups had unequal ages. The subjects were taken from the original Group 2, those young mothers no longer participating in the program. This group was then broken down according to the number of children each mother had: Group 1=1 child, Group 2= 2 children, Group 3=3 or more children. The means and standard deviations for NKIDS are shown in Table 40. The new variable was tested by using a discriminant analysis using Rao's V as the criterion for maximizing group differences. Using the stepwise method, ten of the original 25 variables (see Appendix E) were selected before RAO became nonsignificant (See Table 41).

Table 40

Means and Standard Deviations for NKIDS

Group Means

NKIDS:	TCHER	BF	HBFA	TALKBOYF	TALKFAM
1	1.45	1.10	1.55	1.09	1.27
2	1.06	1.41	1.41	1.35	1.18
3	1.09	1.55	1.82	1.55	1.36
Total:	1.18	1.36	1.56	1.33	1.26

Group Standard Deviations

NKIDS:	TCHER	BF	HBFA	TALKBOYF	TALKFAM
1	0.52	0.30	0.52	0.30	0.47
2	0.24	0.51	0.51	0.49	0.39
3	0.30	0.52	0.40	0.52	0.50
Total	0.39	0.49	0.50	0.48	0.44

Group Means

NKIDS:	ICITOT	ADULT	WORK	CF	ALC
1	110.82	1.18	1.64	1.00	1.82
2	111.12	1.65	1.94	1.06	1.82
3	109.00	1.55	1.91	1.18	1.91
Total	110.44	1.49	1.85	1.08	1.85

Group Standard Deviations

NKIDS:	ICITOT	ADULT	WORK	CF	ALC
1	15.54	0.40	0.50	0.00	0.40
2	12.96	0.49	0.24	0.24	0.39
3	9.25	0.52	0.30	0.40	0.30
Total	12.56	0.51	0.37	0.27	0.37

Table 41

Summary Table NKIDS

Step	Action Entered	Rem	Var. In	Wilks' Lambda	Sig.
1	TEACHER		1	.80	.017
2	BF		2	.69	.010
3	HBFA		3	.54	.001
4	TALKBOYFR		4	.42	.000
5	TALKFAM		5	.39	.000
6	ICTOT		6	.36	.001
7	ADULT		7	.33	.001
8	WORK		8	.30	.001
9	CF		9	.27	.002
10	ALC		10	.25	.002

Step	Action Entered	Rem	Rao's V	Sig.	Change in V	Sig.
1	TEACHER		9.17	.01	9.17	.010
2	BF		16.31	.00	7.14	.028
3	HBFA		27.93	.00	11.62	.003
4	TALKBOYFR		42.65	.00	14.72	.001
5	TALKFAM		48.64	.00	5.993	.050
6	ICTOT		54.69	.00	6.05	.049
7	ADULT		60.02	.00	5.33	.070
8	WORK		70.77	.00	10.74	.005
9	CF		75.34	.00	4.58	.101
10	ALC		83.40	.00	8.06	.018

The discriminant analysis yielded two functions, one of which was significant (see Table 42). The eigenvalue associated with the first function indicated the relative importance of the function to be moderately strong. The corresponding Wilks' Lambda shows that 75% of the variance between the groups can be explained by the variables loading on this function.

Table 42

Canonical Discriminant Functions NKIDS

Rao's V Groups 1,2,3

	Eigenvalue	Percent of Variance	Canonical Correlation
Function 1	2.00	86.33	0.87
Function 2	0.32	13.67	0.49

	After Function	Wilks' Lambda	Chi-Squared	DF	SIG.
Function 1	0	0.25	43.27	20	0.002
Function 2	1	0.76	8.66	9	0.469

The classification results for the variable NKIDS show that 77.5% of the cases were correctly classified. Group 1, mothers with one child, were classified correctly 90.9% of the time; Group 2, mothers with two children, were correctly classified 70.6% of the time, and Group 3, mothers with 3 or more children, was classified correctly 75.0% of the time (see Table 43).

Table 43

Classification Results NKIDS

Actual Group	# of Cases	Predicted Group Membership 1	2	3
1	11	10 (90.9%)	0 (0.0%)	1 (9.1%)
2	17	0 (0.0%)	12 (70.6%)	5 (29.4%)
3	12	1 (8.3%)	2 (16.7%)	9 (75.0%)

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 77.5%

The first function served to discriminate between subjects with one child from subjects with two children as well as those with three or more children. An examination of the relative contribution of the measures to Function 1 (see Table 44) show that those functions having to do with male and teacher support load most heavily into Function 1. Another significant variable for this function was family support. The second function served to discriminate between subjects with two children from those with three or more children. Talking to their boyfriend when upset was the most important variable in this function. Other significant variables were whether they feel close to their family, if the father of their first born child helps, and whether or not the adolescent mother lives with an adult.

Table 44

Standardized Canonical Discriminant Function Coefficients for NKIDS

Variable	Coefficients for Function 1	Coefficients for Function 2
WORK	0.48	-0.11
BF	0.95	0.20
CF	0.27	0.58
ADULT	0.49	-0.51
HBFA	-0.67	0.54
TALKFAM	-0.64	0.07
TALKBOYFR	0.61	0.71
TCHR	-0.77	0.25
ALC	0.37	0.09
ICITOT	0.55	-0.21

The results of this analysis indicated that contact with the father of the first born child, ability to talk to a teacher or counselor while in school, and being able to talk to one's boyfriend when upset were the most important variables for classifying cases into groups. The results also indicated that there was significant differences between those subjects with one child and those with two or more children. However, there was little discriminating power between the groups with two children and those with three or more children. Because of the poor discriminating power between those mothers with two children and those with three or more children, two more analyses using NKIDS were performed combining groups 2 and 3 together.

To recapitulate, the variable NKIDS was formed by using

the original Group 2, dropouts, and breaking that variable into groups according to the number of children each subject had. The variable NIKDS now was composed of two groups: Group 1 = one child, Group 2 = two or more children. Two new analyses were run, one looking at success factors and the other looking at distress factors. This was done to discover if the mothers in Group 2 with one child experienced greater degrees of success as measured by socio-demographic variables as well as the results of the three surveys discussed in Research Questions 2, 3, and 4 as opposed to the mothers in Group 2 who had multiple children. The question to be answered here is: What stress, if any, is associated with having more than one child? Did in fact the number of children impact on these non-participating mothers sense of success or distress? A discriminant analysis, using Rao's V was again utilized.

The analysis using success factors will be discussed first. The means and standard deviations for NKIDS-Success are presented in Table 45. Using the stepwise method, three of the original 16 success factors (see Appendix F) were selected before RAO became nonsignificant (see Table 46).

Table 45

Means and Standard Deviations NKIDS (Success)

Group Means	ADULT	WORK	PSIPDT
1	1.14	1.71	155.86
2	1.59	1.93	145.24
Total	1.50	1.88	147.31

Standard Deviations	ADULT	WORK	PSIPDT
1	0.38	0.49	19.90
2	0.50	0.26	23.98
Total	0.51	0.32	23.37

Table 46

Summary Table NKIDS (Success Factors)

Step	Action Entered	Rem	Vars. In	Wilks' Lambda	Sig.
1	ADULT		1	.88	.036
2	WORK		2	.76	.011
3	PSIPDT		3	.70	.009

Step	Action Entered	Rem	Rao's V	Sig	Change in V	Sig.
1	ADULT		4.78	.029	4.78	.029
2	WORK		10.68	.005	5.90	.015
3	PSIPDT		14.53	.002	3.85	.050

It should be noted that four cases were not used in this analysis because four of the cases had missing variables. These four cases were all in Group 1 and these four subjects were currently in school.

In the discriminant analysis, the function was found to

be significant. The eigenvalue associated with the function indicated that the relative importance of this function was weak suggesting that it may not be meaningful. The corresponding Wilks' Lambda shows that 30% of the variance between the groups can be explained by the variables loading on this function (see Table 47).

Table 47

Canonical Discriminant Functions

Function	Eigenvalue	Percent of Variance	Canonical Correlation
1	0.43	100.0	0.55

Function	After Function	Wilks' Lambda	Chi-Squared	D.F.	Sig.
1	0	0.70	11.56	3	.009

Approximately 72.5% of grouped cases were correctly classified on the basis of these variables as shown in Table 48.

Table 48

Classification Results NKIDS-Success

Actual Group	# of Cases	Predicted Group Membership 1	2
1	11	7 (63.6%)	4 (36.4%)
2	29	7 (24.1%)	22 (75.9%)

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 72.5%

The function derived served to discriminate subjects with one child from subjects with two or more children. Whether the subject worked or not was the most important variable in the function. Another significant variable was whether or not the subject lived with an adult or by herself (see Table 49).

Table 49

Standardized Canonical Discriminant Functions Coefficients: NKIDS-Success Factors

	Function 1
ADULT	.83
WORK	.85
PSIPDT	-.54

The results of the analysis indicated that whether one works or not as well as whether one lives with an adult or by herself were the most important variables for classifying cases into groups. More specifically, subjects with more than one child experienced greater degrees of success in that they lived on their own and, while not working, were able to devote their time to taking care of their children. They did not feel the stress of shared parenting with other family members as well as the stress of working and parenting. As a result these mothers with more than one child experienced less stress as a parent. It must be noted that although this analysis was significant at the .01 level

the low eigenvalue means that the importance of this is questionable.

Using the same variable, NKIDS, with just the two groups an analysis was done to determine if distress factors could be used in discriminating between the subjects with one child and those with two or more children who had dropped out of the parenting education program. The means and standard deviations for the variables that entered the summary table are listed in Table 50. A discriminant analysis using Rao's V was used. Employing the stepwise method 13 of the original 22 distress factors (see Appendix G) were selected for entry in the summary table (see Table 51).

Table 50

Means and Standard Deviations for NKIDS-Distress Factors

Group Means

NKIDS	ADULT	WORK	CF	SEXAB	DIE	ILL
1	1.18	1.64	1.00	1.64	1.91	2.00
2	1.59	1.93	1.10	1.72	1.62	1.90
Total	1.48	1.85	1.08	1.70	1.70	1.93

Group Standard Deviations

NKIDS	ADULT	WORK	CF	SEXAB	DIE	ILL
1	0.40	0.50	0.00	0.50	0.30	0.00
2	0.50	0.26	0.31	0.45	0.49	0.31
Total	0.51	0.36	0.27	0.46	0.46	0.27

Group Means

NKIDS	RPG	LEAVE	ALC	MOMDEAD	DADDEAD	PROBSCH	INSCH
1	1.73	1.73	1.82	1.91	1.73	1.73	1.55
2	1.72	1.69	1.83	1.97	1.86	1.59	1.90
TOTAL	1.73	1.70	1.83	1.95	1.83	1.63	1.80

Group Standard Deviations

NKIDS	RPG	LEAVE	ALC	MOMDEAD	DADDEAD	PROBSCH	INSCH
1	0.47	0.47	0.40	0.30	0.47	0.47	0.52
2	0.45	0.47	0.38	0.19	0.35	0.50	0.31
Total	0.45	0.46	0.38	0.22	0.38	0.49	0.41

Table 51

Summary Table NKIDS-Distress Factors

Step	Action Entered	Rem	Vars. In	Wilks' Lambda	Sig.
1	INSCHOOL		1	.85	.012
2	ADULT		2	.74	.003
3	WORK		3	.63	.001
4	DADDEAD		4	.59	.001
5	CF		5	.56	.001
6	MOMDEAD		6	.51	.001
7	ALC		7	.48	.001
8	DIE		8	.45	.001
9	PROBSCH		9	.41	.001
10	LEAVE		10	.37	.000
11	RPG		11	.35	.000
12	ILL		12	.30	.000
13	SEXAB		13	.27	.000

Step	Action Entered	Rem	Rao's V	Sig.	Change in V	Sig.
1	INSCHOOL		6.90	.009	6.90	.009
2	ADULT		13.25	.001	6.36	.011
3	WORK		22.15	.000	8.90	.003
4	DADDEAD		26.85	.000	4.69	.030
5	CF		29.95	.000	3.10	.078
6	MOMDEAD		37.06	.000	7.12	.008
7	ALC		41.88	.000	4.81	.028
8	DIE		47.32	.000	5.44	.020
9	PROBSCH		53.65	.000	6.33	.012
10	LEAVE		64.42	.000	10.77	.001
11	RPG		70.34	.000	5.92	.015
12	ILL		90.53	.000	20.19	.000
13	SEXAB		101.48	.000	10.95	.001

The function derived was significant. The eigenvalue associated with this function indicated that the relative importance was good. The corresponding Wilks' Lambda shows that 85% of the variance between the groups can be explained by the variables loading on this function (see Table 52).

Table 52

Canonical Discriminant Functions

Function	Eigenvalue	Percent of Variance	Canonical Correlation
1	2.67	100%	.85

Function	After Function	Wilks' Lambda	Chi-Squared	D.F.	Sig.
1	0	.27	40.96	13	.0001

The classification results (see Table 53) show that approximately 97.5% of the cases were correctly classified. Only one case in group 2 was misclassified.

Table 53

Classification Results NKIDS-Distress

Actual Group	# of Cases	Predicted Group Membership 1	2
1	11	11 (100%)	0 (0.0%)
2	29	1 (3.4%)	28 (96.9%)

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 97.5%

As before, the function served to discriminate between the subjects with one child and those with two or more children. Feeling close or not close to one's family was the most important variable in the function. Other significant variables were: Whether the subject's mother

was deceased, whether the subject worked, having had school related problems while in school, and having been told to leave the family home (see Table 54).

Table 54

Standardized Canonical Discriminant Function Coefficients

NKIDS-Distress

	Function 1
ADULT	.74
WORK	.90
CF	1.17
SEXAB	.39
DIE	.42
ILL	.66
RPG	.71
LEAVE	.80
ALC	.51
MOMDEAD	.97
DADDEAD	.43
PROBSCH	.80
INSCH	.58

The results of this analysis indicated that family closeness, subject's mother being alive, and work were the most important variables for classifying cases into groups. More specifically, subjects with one child were characterized by feeling close to their families, their biological mother was more apt to have died, and having a job. These subjects appear to have less distress and more support in their lives. There was significant differences between the non-participant subjects with one child and those with two or more children, as measured by distress

psychosocial and demographic factors.

Summary

The purpose of this chapter was to determine by statistical analysis if there exists differences between adolescent mothers who remain in a parenting education program and adolescent mothers who drop out of the program. Five research questions were addressed to determine significance and three ex-post facto analyses were implemented to attempt to investigate the meaning of the age discrepancies in these samples. A crosstabulation procedure was used to determine the nature of the sample and whether the two groups differed in terms of demographics and descriptive data. This first research question was found to be significant. A discriminant analysis using the Wilks' procedure was used to address research questions 2, 3, and 4. Research Question 2 was related to determining if there were any differential characteristics across groups with respect to the stressors associated with both child and parent characteristics as measured by the PSI. A statistical difference was found but the influence of this is debatable. Research Question 3 was aimed at testing for possible differences in impulsivity between the two groups. No significant differences were found in impulsivity across the two groups. The fourth research question was directed at testing for differences across the groups in terms of the mothers perceptions of infant caregiving practices on the

infants present as well as future well-being. The results were not found to be significant. A discriminant analysis procedure using Rao's V was used to address research question 5 as well as the three ex-post facto analyses. Significant differences between the two groups were found with respect to the parenting profiles. Of the three ex-post facto analyses, the first one, NKIDS, was found to be significant for the first function while the second function was found to be nonsignificant. The second ex-post facto analysis, NKIDS-Success Factors found that there were some significant differences between the groups but the significant differences may not have been very meaningful when examined within the context of the study at hand. The third ex-post facto analysis suggested the existence of significant differences between the two groups relating to distress factors.

CHAPTER V

DISCUSSION

This chapter is organized into four sections. The first section addresses the limitations of the study. In the second section there is a discussion of the results of the data analyses. The results are evaluated in relation to the specific research questions and ex post facto analyses dealt with in this study as well as to the conclusions found in previous research. The third section covers the implications of this study and the final section includes recommendations for further study.

Limitations of the Study

Before discussing the significance of the findings, a discussion of the limitations of the study is in order. First, all 80 African-American subjects in the study were from a low socio-economic area of Chicago. Although this type of population may be found in any high density urban environment, to generalize the results beyond this specific population is risky.

Secondly, the design utilized only one intensive interview session with the young mothers. In some instances, this one interview session appeared to be insufficient with respect to the time needed to develop

appropriate rapport necessary to ensure in accurate reporting of sensitive family and personal issues. Abuse, both physical and sexual, was probably under reported. The same holds true for drug and alcohol dependence. Denial may have been present and appeared to be most obvious in the adolescents view of their relationship or lack thereof with their biological father.

Thirdly, and perhaps most importantly, even after arduous efforts made to locate drop-outs, the ages of the "drop-out" group was significantly older than the "in-program" group. The mean age of the participants at time of interview was 17.76 years while the mean age of Group 2 at the time of the interview date was 20.66. The age at time of dropping out of the program was 18.86 which is approximately one year older than the mean age of the Family Focus participants. This raises the question, Will these in-program subjects drop out in the next year? In addition, the drop-outs were in the program for approximately one year longer than the current participants. Again, the question arises, Does the combination of the year in age and the year longer in the program cause the young mothers to drop out? In spite of the current age differences, there was less than six months difference in the mean ages at delivery of their first born, with Group 2 being slightly, but not statistically significantly older. Another age factor that was difficult to handle was the age of the first born child

at the time of the interview. Again, the original premise was that each subject would have one child and the children would be approximately the same age. This was either not the case or the subjects were impossible to find and the end result was that the mean age of the children in Group 1 was 1.37 years while the mean age of the children in Group 2 was 3.67 years. Along with these factors was the number of children the subjects had. While all questions about childraising were to be answered with regard to the first born, undoubtedly, having more children changes one's perspective. The interval between having their first born and the interviews may have affected the subjects' recall.

In spite of addressing the age issue in the analyses and removing all age variables except the number of children, this still remains a possible limitation of the study. Nonetheless, the findings reported in this study provide us with a comparative representative sample of poor, urban African-American adolescent mothers who cjppse tp continue to participate in or drop-out of a parenting education program.

Discussion

This study is important because of the growing incidence of unwed adolescent mothers. Among the African-American population nearly three teenage girls in ten get pregnant every year (Stanford University National Bureau of Economic Research, 1990). The study described here was

exploratory and a sample of convenience was used. However, the sample was unique in that 87.5% of the participants were receiving some sort of government funding. This high level of government support far surpasses national statistics for adolescent mothers receiving public assistance. Finally, it should be noted that the participants were currently enrolled in school or had graduated from high school (53.7%) at a higher rate than research indicates for adolescent mothers.

Discussion Related to Research Question One

The first research question was related to describing the nature of the sample and determining if the two groups differed from each other. The medium used was a survey that asked questions regarding age, family structure, school status, etc.

An examination of the results of the statistical analysis related to this question indicated that there were statistically significant differences between groups for seven of the variables ($p < .05$). Of all the subjects in the study, 71% lived with an adult family member. This greatly exceeds the 25% that Presser (1980) mentions as the number of single African-American adolescent mothers who reside with their families. This breaks down to 52.5% of Group 2 living with an adult family member while 90% of Group 1 remain within the family home.

Forty-six percent of the entire sample had dropped out

of high school. This breaks down to 67% for Group 2 mothers and 25% for Group 1 mothers. The figures for Group 2 agree with previous research (Alan Guttmacher Institute, 1989; Moore et al., 1978) in that less than 50% of adolescent mothers finish their high school education. Graduation tended to be higher for Group 2 mothers (22%) than for Group 1 (7%) but the older age of Group 2 may have influenced this trend. However, it appears that the young mothers who remain in the parenting education programs stay in school at a much higher rate than the Alan Guttmacher Institute (1989) suggests. An interesting observation is that for the entire sample used in this study the figures show slightly higher school completion than the Guttmacher and Moore study state. This leads one to consider that the parenting education program, even for the drop-outs has impacted positively in some slight way on their education. Furstenberg (1987) did a five and ten year follow up study of African-American adolescent mothers and found that after five years, 50% of the mothers had completed their high school education while in ten years the number jumped to 67% which is the same percentage of the non-participating mothers who have dropped out of school. While it is impossible to tell whether those in Group 2 will return to finish their education in five to ten years as Furstenburg suggests, it would be interesting for further study to see if this group actually does return to school. Another possible follow up study could be

conducted on the Group 1 mothers, 90% of whom are currently in school. It would be interesting to see if they complete their education as opposed to postponing their education as the reported research suggests they do.

Battle (1987) stated that almost half of all African-American children are partially supported by government programs. The actual number of the subjects participating in the study reported here who received public assistance for their children is 87.5%, a number far greater than Battle mentions. When the groups are broken down, 100% of Group 2 receive assistance while 75% of Group 1 are recipients of government funding, both groups far surpass Battle's 50% figure. Hogan (1984) reports that 61% of African-American adolescent mothers receiving AFDC had their first child in their teenage years. This is closer to what was found to be characteristic in the study at hand.

Admitted sexual abuse, drug dependence by family members, and personal drugs and alcohol use was found to be significantly higher for the non-participating mothers.

All things considered, the significant differences between groups 1 and 2 with respect to their demographic and descriptive characteristics leads one to speculate that Group 1 had a relatively more supportive and stable environment.

Discussion Related to Research Question Two

The second research question asks was related to

documenting possible differential characteristics of the mothers across groups with respect to the stressors associated with child and parent characteristics. The Parenting Stress Index (PSI) was used to assess stress across the two groups. Examination of the results of the Discriminant Analysis using the Wilks' Method yielded some significant differences in the discriminating power between Groups 1 and 2 ($p < .05$). Group 2 experienced greater stress in four of the six subscales. Taken together these four subscales had significant discriminating power. This group felt they lacked the emotional and active support of the father of their first born. The father is not available for companionship and is unwilling to accept the responsibilities of the parental role (Abidin, 1986). It should be noted that this finding may be related to the older age and the greater number of children in Group 2. Most often the second and third children had different fathers. Group 2 scored higher in terms of stressors related to their own health. High scores here indicate deterioration of the mother's health that may be either the result of stress or an additional stressor in the parent child relationship (Abindin, 1986). Brown (1982) reported that many pregnant adolescents go through intensified periods of emotional strain and confusion. This heightened tension could be related to the relatively high scores on the Parental Health subscale. Although Group 2 scored

higher in this area, Group 1's scores also indicated distress in this area.

Erikson (1963) stated that group identity is an important part of the identity formation concept. Although research (Brown, 1982; de Anda, 1983) indicates that pregnancy tends to dislodge adolescents from forming peer group relationships, the findings reported in this study show a rather low sense of isolation among the respondents. The parenting education classes appear to help the young mothers of both groups to gain a sense of commraderie with their peers. The isolation scale on the PSI was found to be within normal limits for both groups which is an important factor in successfully completing adolescent developmental tasks.

Brown (1982) also stated that many pregnant adolescents suffer from doubt and low self esteem. This is consonant with the relatively high scores both groups obtained on the Parents Sense of Competence Subscale. It is expected, on this scale, that young mothers of an only child will score higher than multiparous parents. Mothers who are lacking in practical child development knowledge or who possess a limited range of child management skills will also earn high scores (Abidin, 1986). As can be seen from an examination of the contents of Table 24, Group 1 experienced slightly more stress in this area. This group also had fewer children, 36 had one child (Table 10) and had been exposed

to the program for a shorter period of time. Since the mothers in Group 1 lived at home in larger numbers than the mothers in Group 2, they may have given over some of the childrearing duties to an older family member.

Group 2 experienced less positive reinforcement from their first borns. This may be due to the fact that their first borns were older and they may be trying to declare their own independence which would be a stressful period for all parents. Another possibility is that the young mothers in Group 2 who had an average of twice as many children as those in Group 1 may have been overwhelmed by the number of children for whom they must provide both emotional and financial support.

Both groups scored close to the high stress level when it came to the Child Distractibility subscale with Group 1 scoring slightly higher. High scores here are associated with children who display many of the behaviors found among Attention Deficit Disordered children. High scores are also seen with parents who have unreasonable expectations for mature behavior from their child (Abidin, 1986). According to Roosa (1984), teenagers enrolled in parenting education classes become more knowledgeable in terms of child development but show little, if any, change in parenting attitudes. Even though the adolescent mothers are aware of developmental milestones, they do not seem to put this knowledge to work with any consistency. The findings

reported in this study support Roosa's views that adolescent mothers, even those in parenting education programs, have greater expectations for mature behavior from their children at an earlier age than developmental norms would suggest. The fact that the Group 1 subjects scored at a slightly higher stress level may be indicative of the fact that they are younger themselves and had fewer children. Therefore, they were not as experienced in what to expect, maturationally, from their child. Vukelich et al. (1985) found that teenage mothers expected their babies to perform certain behaviors earlier than child development experts suggest is average. The frustration that ensues when a child does not perform as expected or even the belief that the child is purposely not doing what is expected can easily lead to elevated scores in this area.

High scores in Child Demandingness are produced when the mother experiences her child as placing many demands upon her (Abidin, 1986). However, in this case Group 2 reportedly felt, as a whole, more stress in this area. This may be because Group 2 mothers had more children and therefore felt more stress by placing more demand on the mother for attention from each sibling. Another assumption could be that Group 2 mothers no longer had the support of the parenting education program and had not yet developed enough inner resources to adequately handle the many demands of rearing children without the support of an intervention

program. Another factor to be considered here is that more of the Group 2 mothers live on their own with less family support and less childcare help.

Discussion Related to Research Question Three

Research question three was related to determining if the two groups differed with respect to impulsivity. The Student Self-Rating Scale for Impulsivity was used to assess impulsivity across the two groups. No significant difference between the two groups was found.

Discussion Related to Research Question Four

Research Question 4 was related to determining if the two groups differed with respect to perceptions about the influences of infant caregiving practices on infants present future well being and on maternal well-being. The Infant Caregiving Inventory-Revised (ICI-R) was used to test for differences across groups. The results of the Discriminant Analysis were found to be non-significant. However, the total score did become a relevant discriminating variable among the three groups with the variable NKIDS. This finding will be discussed later.

Discussion Related to Research Question Five

Research question 5 was related to determining what variables (demographics, descriptive data, and the three surveys), would comprise a parenting profile that could be used to differentiate between the African-American adolescent mothers who remain in a parenting education

program compared to those who choose to drop out.

The Discriminant Analysis, Rao's V Stepwise procedure using in/out groups as the dependent variable selected 9 socio-demographic variables (KIDS, INSCHOOL, WORK, MD, CF, DRUGS, ADULT, HPGP, and TALKFR) and one survey (PSIPDT) variable that was found to be significant at the .001 level. This combination of variables was determined to be most effective in classifying subjects who dropped out compared to those who remained in the program. Both groups enjoyed close relationships with their families. It appeared that the subjects who dropped out of the program had more children, who were less frequently in school, tended to have a job, were reared by their biological mother, had families that used drugs, lived on their own, had paternal grandparents of their first born who helped with child care, and were able to talk to their friends about their problems. In addition, Group 2 subjects scored close to the high stress level in the PSI Parent Domain. This high score suggests that the sources of stress and potential dysfunction of the parent-child system may be related to areas of the parent's functioning (Abidin, 1986). Research (Abidin, 1986) indicates that young mothers and those with limited prior involvement with children tend to earn higher Parent Domain scores. Interestingly, while both groups of mothers were young, it is the older of the two groups and the group with more children who scored higher in this area.

It is also the group that no longer had the support of a parenting education program.

In an attempt to understand why some adolescent mothers stayed in a parenting education program while others dropped out, five sets of data were carefully examined. The sample proved homogeneous with respect to their stated values and goals. No significant differences were found in their impulsivity and in their perceptions regarding the influences of child care practices for their infants future well-being as well as maternal well-being. Some significant differences were found with respect to their Parenting Stress Index scores in both the parent and child domain. However, the differences in the two groups, once the age variables were removed, seem to be most clearly related to demographic variables and interpersonal dynamics. In many respects, the adolescent mothers who remained in the parenting education program would seem to be enjoying more support and stability than the non-participating mothers.

Current Participants: Group 1

Those in Group 1 had significantly fewer children, were less likely to report a family member using drugs, and were currently in school in significantly greater numbers. In addition, Group 1 mothers lived with an adult family member and had some contact with the father of their first born. They seemed to experience fewer health related problems and got more positive reinforcement from their child or

children. The overall impression is conveyed that they were more able to remain securely dependent during this period than those in the drop-out group. How long they will stay in the parenting education program is unknown but presently, only 25% of this group had dropped out of high school as compared to 46.25% of the entire sample and 67.5% of Group 2. This 25% figure also compares quite favorably with national statistics that indicate that less than half of adolescent mothers stay in school. In addition, at the time of the interview, 90% of Group 1 mothers had one child as contrasted with the Group 2 mothers, who at time of had one child. Group 1 mothers were also not reared by their biological mothers with the frequency that Group 2 mothers were. This may cause the Group 1 mothers to be more needy of an outside support group or it may indicate they were reared by a more stable surrogate mother.

Non-Participants: Group 2

The non-participating group mothers compared least well to Group 1 mothers economically and also reported the highest percentage of deaths in the family of origin. They had the highest incidence of sexual abuse and reported a greater frequency of drug use by family members. They also admitted to greater personal use of alcohol or drugs when depressed. By the time of the interview they were much less likely to have contact with the baby's father. This could be because the first born in Group 2 was older than the

first born in Group 1 and many of the mothers in Group 2 had developed new relationships. Sandven (1985) reported adolescent mothers with these types of profiles tend to utilize agency services for themselves, however this does not seem to be the case in the study described here. This same group reported that the paternal grandparents played an active role in helping them with their grandchild. Six mothers reported their child or children to be in the custody of DCFS while none of the subjects in Group 1 did. This group is more likely to talk with a friend when having a problem. They are also more likely to have a job. More of these Group 2 subjects were raised by their biological mothers but again this raises the question if this is a positive plus or a negative influence.

It is important to note that the variables discussed <u>together</u> differentiate between the two groups. No variable alone (except for the variables related to age differences) accounts for very much of the variance between the groups. However, an adolescent mother's tendency to stay in or drop out of a parenting education program appears moderately related to these combinations of variables.

<u>Discussion Related to the New Variable NKIDS</u>

The final treatment of the data used a new variable NKIDS. Because of the heavy weight the age variables carried, Group 2 (non-participants) was broken down into three subcategories based on the number of children the

drop-out group had. This was done to see what, if any, differences existed due to number of children as opposed to being in or out of a parenting education program. The Discriminant Analysis Stepwise procedure selected ten variables, nine demographic variables (TCHER, BF, HBFA, TALKBOYFR, TALKFAM, ADULT, WORK, CF, ALC) and one survey (ICITOT) variable.

There seems to be a set of variables that is able to differentiate between groups of mothers with one, two, and three or more children. This latter discrimination was found to be rather weak therefore the last two analyses combined Groups 2 and 3 to make Group 2-mothers with two or more children. This will be discussed in the next section.

As a set, seven of the ten variables had to do with relationships of the adolescent mother. An important component of parenting education classes is the help the program gives, both through the dissemination of information as well as emotional support.

The results of the Discriminant Analysis indicated that Group 2 and 3 were similar with respect being able to talk to their teachers when in school, living on their own, having less contact with the father of their first born, and being less able to talk to their current boyfriend when having a problem. Those mothers in Group 1, having one child, seemed to be currently employed in greater number and felt very close to their families. Those in Group 2, having

two children, reported that they had more help from the father of their first born and were able to talk to their families when problems arose. This same Group 2, felt that child care practices have a stronger influence on the well being of both the child and the mother than did either Group 1 or Group 3 mothers.

Discussion Related to NKIDS: Success Factors

As previously mentioned, the new variable NKIDS was used to determine if differences existed in the parenting profiles of adolescent mothers based on their number of children. Based on the classification results of NKIDS (see Table 43) Group 2 and Group 3 were combined. As can be seen in Table 43, 90% of Group 1 was classified correctly with only one misclassified into Group 3. Twelve (70.3%) in Group 2 were classified correctly with 5 (29.4%) misclassified into Group 3. Nine (75%) of Group 3 mothers were correctly classified with 2 (16.7%) misclassified into Group 2 and one (8.3%) misclassified into Group 1. Based on this, Groups 2 and 3 were combined for both NKIDS-SUCCESS and NKIDS-DISTRESS.

Number of children became the variable that was dependent upon several factors. In this analysis 20 variables that could be used to determine various stages of success were used. The Discriminant Stepwise Procedure selected three variables, two demographic variables (ADULT, WORK) and one survey variable (PSIPDT). This combination of

variables was determined to be most effective in classifying subjects into Group 1 and Group 2. Although this analysis was found to be significant at the .01 level the importance was questionable due to the low eigenvalue. Mothers with one child lived in the family home and worked more frequently than those mothers with more children. However, the mothers with 1 child also scored higher on the PSI Parent Domain. Some of the reasons for this could be that the mothers in Group 1 were able to work because they lived with an adult member of the family who could provide childcare and yet experienced higher stress because of their duel job of work outside the home and childraising after the work day is over.

Discussion Related to NKIDS-DISTRESS FACTORS

The same procedure was used in this analysis as on the one for success factors. This analysis used 22 variables that could best identify distress in the adolescent mothers lives. The Discriminant Stepwise Procedure selected 13 variables, all related to demographics. These 13 variables together were able to discriminate between mothers with one child and those with two or more with 97.5% accuracy. Group 1 was distinguishable by having overall less distress in their lives than those with two or more children. Of the 13 variables that measured distress, Group 1 mothers showed higher distress with four of them. Those were having a greater incidence of death of both parents as well as their

mothers reacting to their pregnancy with less enthusiasm than those in Group 2. Again, with respect to this last variable, age may have played a role here. The subjects were to report their mothers reaction to their first pregnancy and the subjects' recall may have been hampered by the long interval between their first pregnancy and the time of the interview. The fourth distress factor for Group 1 was they admitted to a higher use of alcohol or drugs when depressed. Group 2 showed a greater frequency of sexual abuse, someone close to them having recently died or been very ill and being told to leave the family home. Possibly as a result of being told to leave home they also reported living on their own more frequently and felt less close to their families. The mothers with two or more children also reported having more problems when in school which conceivably resulted in a greater number of them dropping out of school. This analysis is an indicator that distress in an adolescent's past is a good predictor of the number of children she may have had.

In summary, there seems to be certain variables that together affect whether one remains in a parenting education program or choose to drop out as well as certain variables that, together, will impact on the number of children one may have. These sets of variables are not identical. Some of the same variables are present across groups, but they are combined with others.

This study was designed in an attempt to identify characteristics of the potential dropouts from a parenting education program for the purpose of planning and targeting intervention for these adolescent mothers. Of the five original differences tested, two of the tests showed no significance with respect to differentiating between those who stayed in the program and those who dropped out. One other test for differences, while found to be significant, was considered questionable due to its low eigenvalue. However, the examination of demographic data set did show significant differences across groups. The two research questions based on the demographic data set proved to be the best discriminator across the two groups. Of the three expost facto analyses, two were found to be significant and one was found to be significant but its meaning was questionable.

The mothers in this study were between the ages of 15 and 23 years with a mean age of 19.21 at time of interview. Their mean age at delivery was 16.64 years. Their children ranged in age from one month to six years with a mean age of 2.52. The majority (71.3%) livee in the family home and 46.3% had dropped out of school. 87.5% were receiving some form of public assistance and 12.5% were currently employed.

Implications

Based on the results obtained from this research project the following implications are suggested:

1. Since a certain combination of demographic variables tended to discriminate between those who choose to remain in a parenting education program and those who choose to drop out, it is recommended that these questions be included in the intake process. Perhaps a separate program for the "high risk" mothers could be implemented to address their special needs such as more intensive programs on birth control as these mothers tend to have more children. Another issue to be addressed would be increased attention to the importance of returning to school and help in learning to live on their own since Group 2 mothers, at a greater rate than Group 1 mothers, moved out of the family home. Increased drug awareness is important as the drop outs family appears to have a higher incidence of drug use.

2. Group 2 mothers tends to have more support from their first born's paternal grandparents and were able to talk to their friends about their problems. They were also reared, with greater frequency, by their biological mother and were currently employed in greater numbers. These positive signs suggest that some of the Group 2 mothers may have dropped out because they did not need the program for as long a period of time as Group 1 mothers. They get support from extended family and friends as well as a sense of competence from being employed.

3. It is recommended that for adolescent mothers who have two or more children, a special class be offered to

help the mother with the different problems incurred with raising more than one child.

4. It is recommended that supportive counseling that deals with self-esteem be offered.

5. Baby sitting and transportation, if possible, should be offered if or when more children are born.

Recommendations

Research on adolescent mothers in intervention programs is limited. Therefore the following recommendations are made for further research;

1. Further research is needed on factors that influence an adolescent mother's decision to continue or drop out of a parenting education program. This study is just a beginning.

2. Personality factors and self-concept development of adolescent mothers who choose to continue or terminate a parenting education program should be examined.

3. More indepth research is needed on the characteristics common to adolescent mothers who continue or terminate an intervention program. Longitudinal studies to investigate these characteristics should be conducted.

4. Demographic information on the subjects of this study was comprehensive. However, to strengthen the findings of this research it is recommended that this study be replicated with the following adjustments:

(a) a sample group with less age variance

(b) a sample group with the same number of children

5. For Family Focus and/or other parenting intervention programs, an intake interview should include the questions that proved best in discriminating between groups. In that manner, high risk adolescent mothers could be targeted for special programs. In addition, the adolescent mothers who seem to have sufficient family and peer group support would not be looked upon as a drop out but as a young mother who gained what she needed from the program and moved on for positive reasons.

Adolescent pregnancy continues to be one of the major social problems affecting our nation and our economy. Adolescents today desperately need individuals and professional personnel who are keenly aware of their problems and concerns and have their best interest at heart. Social agencies, educational institutions, public officials, and other individuals in policy-making positions must be willing to face the problems of adolescent pregnancy and meet whatever challenge it brings for adolescents today inevitably will be either our contributors or our problems of tomorrow.

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APPENDIX A

#_____
DOB _____ Infant's DOB_____
Date_____

SEMI-STRUCTURED INTERVIEW

Hi, I'm Dianne. I'll be interviewing you today and helping you fill out some forms we have.

Thank you for helping me with this study. How you feel about being a parent at this time in your life is important to me. I hope that the results from this research can be used to help Family Focus make good decisions and have the best possible programs for you and other young mothers.

There are no right or wrong answers to these questions. As you know, everything you say is confidential and your name will be taken off the records. You do not have to answer any questions which are too private or personal. Please feel free to ask questions about anything you don't understand. When you finish everything I will give you $20.00 to pay you for your time.

I. Socio-demographic Data

Let's start with your family. Who lived with you while you were growing up? (As the subject mentions the name the interviewer will write it down and then ask the relationship, age, etc.)

F Member Relationship Age Marital Status Level of Ed.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Who do you live with now? (If same people, go on to where you live, etc. If others, ask relationship, age, etc,)_____

_____
_____
_____
_____
_____

Does _____ work?_____ If so, what does he/she do?____
_____
_____
_____
_____
_____
Have you always lived in the same house or apartment?_____
(If No then)
How many times have you moved?_____
Have you ever lived in another city?_____Another state?__

II. Relationships

Who runs your family, makes decisions, rules?_____
_____
Are you in school now?_____ If yes, who takes care of your baby when you are in school?_____ If no, do you have a job?_____ If yes, who takes care of your baby when you work?_____ How many hours a week do you work?_____
If you go to school and/or don"t work how do you get spending money?_____
_____
(If there are other young children in the house) Who takes care of them?)_____
Who cooks?_____
Do you have any jobs you have to do around the house?_____
If so, what?_____
Does_____go to school?_____(Repeat as necessary) _____
_____
_____
Do you and other people in your family belong to a church?___
If yes, about how often do you go?_____
Who do you feel closest to in your family?_____
Who do you spend the most time with?_____
Who would you tell a secret to?_____
Who would you ask for help?_____
Who do you have the most fun with?_____
Who do you fight with the most?_____
Does it get physical?_____
(If yes, did you ever get beaten up?)_____
Some of the young women I have talked to have been sexually abused in some way. By that I mean someone has touched her in a way or in a place she didn't want to be touched or forced to do something she didn't want to do. Has anything like this ever happened to you?
_____
Have you ever talked to anyone about this?_____
Does anyone in the family get drunk?_____If yes, how often?_____
Does anyone in the family do drugs?_____If yes, how often?_
_____What kind?_____
Has anyone close to you died recently?_____

Been very ill?_____Or left the family in some other way?_____

I want to ask you a few questions about relationships in the family.

1. Mother
How close are you with your mother?
1) Very close 2) Close 3) Fairly close 4) Occasionally close 5) Not close at all
(If 5) Were you ever close?_____What changed things?
_____
Do you think she understands you?_____
Can you talk to her about most things?
1) Always 2) Usually 3) Sometimes 4) Not often 5) Never
Could you talk to her about sex?_____
Could you talk to her about the possibility of getting pregnant? _____
_____How did she react when you told her you were pregnant?
1) Happy 2) Somewhat happy 3) Indifferent 4) Disappointed 5) Angry
If 5, what did she do?_____
Does your mom get angry often?_____
Does your mom show affection and praise you often?_____
Has she ever sent you to live with relatives or told you to leave? _____
Do you take what she says seriously?_____
Or pretty much do whatever you want?_____
How old was your mom when she first got pregnant?_____
What did she do?_____

2. Father (Step-father, live-in boyfriend, etc. <u>in home</u>)

How close are you with your _____? (Show 3x5 cards)
1) Very close 2) Close 3) Fairly close 4) Occasionally close
5) Not close at all
(If 5) Were you ever close?_____What changed things?
_____
If not close, would you like to be closer?_____
Do you think he understands you?
1) Always 2) Usually 3) Sometimes 4) Not often 5) Never
Could you talk to him about sex?_____

How did he react when you told him you were pregnant?_____
___ 1) Happy 2) Somewhat happy 3) Indifferent 4) Disappointed 5) Angry
If 5, what did he do?_____
_____ Does your _____ get angry

often?_____ Does your dad show affection and praise you often?_____
Has he ever sent you to live with relatives or told you to leave home?_____

Do you take what he says seriously?_____
Or pretty much do what you want?_____
Father--if not in home
How do you feel about him?_____
Do you worry about him?_____
Or miss him?_____Feel angry about him?_____
Wish you knew more about him?_____
How much contact do you have with him?_____
If in contact--Does he try to tell you what to do?_____

Other adult living in the home, eg. grandmother, aunt, uncle
How close are you with_____?
1) Very close 2) Close 3) Somewhat close 4) Occasionally close 5) Not close at all
Does_____try to tell you what to do?_____
Do you pay much attention?_____
Does _____ ever fight with your parents about you?_____
Who usually wins?_____

Siblings

If there are sisters,
Do you have any sisters who were pregnant before they were 19?____If so, what was the age and what was the outcome?_____
_____
Repeat for each sister_____
If there are brothers,
As far as you know, have any of your brothers gotten a girl younger than 19 pregnant? _____ If yes, how old were they at the time? _____ And what did they decide to do?_____
Repeat for each brother_____
_____

Friends: Baby's Father

Do you still see the baby's father?_____
How old is he?_____ Is he in school? _____ Does he work?_____
How do you feel about him now?_____
Did your family like him?_____
How about his family; what was your relationship like with them?_____
Do you think that one day you will live together or get married?_____
At the time you became pregnant, what was the relationship?

(Give paper to subject and she will mark the appropriate place)

Important	_____	Unimportant
Unhappy	_____	Happy
Bad	_____	Good
Deep	_____	Shallow
Secure	_____	Insecure
Unfriendly	_____	Friendly
Good Sexually	_____	Bad Sexually
Close	_____	Not Close
Tense	_____	Relaxed

Other Peers

How many friends do you have?
1) Lots 2) A few close friends 3) Some 4) Hardly any 5) None
How important are your friends to you?
1) Very important 2) Important 3) Somewhat important 3) Slightly Important 5) Not important
Do you talk to them?_____
Like if you are having a problem?_____ Or mostly just have a good time?_____
Do you have other friends who've been pregnant under 19?_____
What decision did they make about the baby?_____
_____

III. History of Coping

Have you any big problems to deal with?_____
If yes, Give me an example-like a death or a divorce in your family. _____
How did you handle it?_____
_____
_____
_____
Did you go to a friend or a relative or anyone else for help? (list) _____
_____
When thing get rough do you or have you in the past:
Talk about the problems with the family or relatives?_____
Talk about the problems with friends?_____
Talk about the problem with a boyfriend?_____
Talk about the problem with a teacher or counselor at school?_____
Pray or rely on your religion?_____
Cry a lot alone?_____
Have fights with family or friends?_____
Swear a lot?_____
Break things?_____
Hurt yourself in some way?_____
Run away?_____

Use drugs or alcohol?_____
Take it out on others by being mean or sarcastic?_____
Rely upon a pet for comfort?_____
Joke around a lot?_____
Try to keep busy with activities outside the home?_____
Try to keep busy by working a lot?_____
Stay away from home with friends?_____
Partying?_____
Stay in your room and read?_____
Use sports or other physical activities?_____

Tell yourself to look on the bright side?_____
Daydream a lot?_____

IV. School/Academic and Life Goals

You said you were in school now. What grade?_____
You said you aren't in school now. What grade were you in when you left school?_____
How do you feel about school?_____
Have you had any special help at school? (special tutoring or class)_____
Did you have any problems in school?_____
Like: Attendance_____
Learning_____
Behavior_____
How important is it to you to graduate from high school?
1) Very important 2) Important 3) Somewhat Important
4) Hope to 5) Don't care
Are you planning to get a GED?_____
Before the pregnancy, did you want to go on to vocational school or college?_____
Has this been changed by the pregnancy _____
Have you ever had a job?_____
If so, doing what?_____
If not, do you want one?_____
Do you expect to be working in five years?_____
What kind of job would you like?_____
_____
_____
How do you feel about working mothers?_____
_____
_____
_____
What are your goals for yourself in the next five years?_____
_____
_____
In the next ten years?_____
_____
_____
_____

Why did you drop out of Family Focus?_____
_____
How many kids do you have now?_____
Are any of your kids placed with DCFS?_____
Is your mom dead?_____
Is your dad dead?_____
How old were you when you dropped out of Family focus?_____
How old was your first born when you dropped out?_____
How many kids did you have when you dropped out?_____

IMPORTANT _____ UNIMPORTANT

UNHAPPY _____ HAPPY

BAD _____ GOOD

DEEP _____ SHALLOW

SECURE _____ INSECURE

UNFRIENDLY _____ FRIENDLY

GOOD SEXUALLY _____ BAD SEXUALLY

CLOSE _____ NOT CLOSE

TENSE _____ RELAXED

APPENDIX B

PARENTING STRESS INDEX (PSI)

Administration Booklet

Richard R. Abidin
Institute of Clinical Psychology
University of Virginia

Directions:

In answering the following questions, please think about the child you are most concerned about.

The questions on the following pages ask you to mark an answer which best describes your feelings. While you may not find an answer which exactly states your feelings, please mark the answer which comes closest to describing how you feel. **YOUR FIRST REACTION TO EACH QUESTION SHOULD BE YOUR ANSWER.**

Please mark the degree to which you agree or disagree with the following statements by filling in the number which best matches how you feel. If you are not sure, please fill in #3.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

Example: 1 (2) 3 4 5 I enjoy going to the movies. (If you sometimes enjoy going to the movies, you would fill in #2.)

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

1. When my child wants something, my child usually keeps trying to get it.
2. My child is so active that it exhausts me.
3. My child appears disorganized and is easily distracted.
4. Compared to most, my child has more difficulty concentrating and paying attention.
5. My child will often stay occupied with a toy for more than 10 minutes.
6. My child wanders away much more than I expected.
7. My child is much more active than I expected.
8. My child squirms and kicks a great deal when being dressed or bathed.
9. My child can be easily distracted from wanting something.
10. My child rarely does things for me that make me feel good.
11. Most times I feel that my child likes me and wants to be close to me.
12. Sometimes I feel my child doesn't like me and doesn't want to be close to me.
13. My child smiles at me much less than I expected.
14. When I do things for my child I get the feeling that my efforts are not appreciated very much.
15. Which statement best describes your child?
    1. almost always likes to play with me,
    2. sometimes likes to play with me,
    4. usually doesn't like to play with me,
    5. almost never likes to play with me.
16. My child cries and fusses:
    1. much less than I had expected,
    2. less than I expected,
    3. about as much as I expected,
    4. much more than I expected,
    5. it seems almost constant.
17. My child seems to cry or fuss more often than most children.
18. When playing, my child doesn't often giggle or laugh.
19. My child generally wakes up in a bad mood.
20. I feel that my child is very moody and easily upset.
21. My child looks a little different than I expected and it bothers me at times.
22. In some areas my child seems to have forgotten past learnings and has gone back to doing things characteristic of younger children.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

23. My child doesn't seem to learn as quickly as most children.

24. My child doesn't seem to smile as much as most children.

25. My child does a few things which bother me a great deal.

26. My child is not able to do as much as I expected.

27. My child does not like to be cuddled or touched very much.

28. When my child came home from the hospital, I had doubtful feelings about my ability to handle being a parent.

29. Being a parent is harder than I thought it would be.

30. I feel capable and on top of things when I am caring for my child.

31. Compared to the average child, my child has a great deal of difficulty in getting used to changes in schedules or changes around the house.

32. My child reacts very strongly when something happens that my child doesn't like.

33. Leaving my child with a babysitter is usually a problem.

34. My child gets upset easily over the smallest thing.

35. My child easily notices and overreacts to loud sounds and bright lights.

36. My child's sleeping or eating schedule was much harder to establish than I expected.

37. My child usually avoids a new toy for a while before beginning to play with it.

38. It takes a long time and it is very hard for my child to get used to new things.

39. My child doesn't seem comfortable when meeting strangers.

40. When upset, my child is:
    1. easy to calm down,
    2. harder to calm down than I expected,
    4. very difficult to calm down,
    5. nothing I do helps to calm my child.

41. I have found that getting my child to do something or stop doing something is:
    1. much harder than I expected,
    2. somewhat harder than I expected,
    3. about as hard as I expected,
    4. somewhat easier than I expected,
    5. much easier than I expected.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

42. Think carefully and count the number of things which your child does that bothers you. For example: dawdles, refuses to listen, overactive, cries, interrupts, fights, whines, etc. Please fill in the number which includes the number of things you counted.
    1. 1-3
    2. 4-5
    3. 6-7
    4. 8-9
    5. 10+

43. When my child cries it usually lasts:
    1. less than 2 minutes,
    2. 2-5 minutes,
    3. 5-10 minutes,
    4. 10-15 minutes,
    5. more than 15 minutes.

44. There are some things my child does that really bother me a lot.

45. My child has had more health problems than I expected.

46. As my child has grown older and become more independent, I find myself more worried that my child will get hurt or into trouble.

47. My child turned out to be more of a problem than I had expected.

48. My child seems to be much harder to care for than most.

49. My child is always hanging on me.

50. My child makes more demands on me than most children.

51. I can't make decisions without help.

52. I have had many more problems raising children than I expected.

53. I enjoy being a parent.

54. I feel that I am successful most of the time when I try to get my child to do or not do something.

55. Since I brought my last child home from the hospital, I find that I am not able to take care of this child as well as I thought I could. I need help.

56. I often have the feeling that I cannot handle things very well.

57. When I think about myself as a parent I believe:
    1. I can handle anything that happens,
    2. I can handle most things pretty well,
    3. sometimes I have doubts, but find that I handle most things without any problems,
    4. I have some doubts about being able to handle things,
    5. I don't think I handle things very well at all.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

58. I feel that I am:

    1. a very good parent,
    2. a better than average parent,
    3. an average parent,
    4. a person who has some trouble being a parent,
    5. not very good at being a parent.

59. What were the highest levels in school or college you and the child's father/mother have completed?
    Mother:

    1. 1-8th grade
    2. 9-12th grade
    3. Vocational or some college
    4. College graduate
    5. Graduate or professional school

60. Father:

    1. 1-8th grade
    2. 9-12th grade
    3. Vocational or some college
    4. College graduate
    5. Graduate or professional school

61. How easy is it for you to understand what your child wants or needs?

    1. very easy,
    2. easy,
    3. somewhat difficult,
    4. it is very hard,
    5. I usually can't figure out what the problem is.

62. It takes a long time for parents to develop close, warm feelings for their children.

63. I expected to have closer and warmer feelings for my child than I do and this bothers me.

64. Sometimes my child does things that bother me just to be mean.

65. When I was young, I never felt comfortable holding or taking care of children.

66. My child knows I am his or her parent and wants me more than other people.

67. The number of children that I have now is too many.

68. Most of my life is spent doing things for my child.

69. I find myself giving up more of my life to meet my children's needs than I ever expected.

70. I feel trapped by my responsibilities as a parent.

71. I often feel that my child's needs control my life.

72. Since having this child I have been unable to do new and different things.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

73. Since having a child I feel that I am almost never able to do things that I like to do.

74. It is hard to find a place in our home where I can go to be by myself.

75. When I think about the kind of parent I am, I often feel guilty or bad about myself.

76. I am unhappy with the last purchase of clothing I made for myself.

77. When my child misbehaves or fusses too much I feel responsible, as if I didn't do something right.

78. I feel everytime my child does something wrong it is really my fault.

79. I often feel guilty about the way I feel towards my child.

80. There are quite a few things that bother me about my life.

81. I felt sadder and more depressed than I expected after leaving the hospital with my baby.

82. I wind up feeling guilty when I get angry at my child and this bothers me.

83. After my child had been home from the hospital for about a month, I noticed that I was feeling more sad and depressed than I had expected.

84. Since having my child, my spouse (male/female friend) has not given me as much help and support as I expected.

85. Having a child has caused more problems than I expected in my relationship with my spouse (male/female friend).

86. Since having a child my spouse (or male/female friend) and I don't do as many things together.

87. Since having my child, my spouse (or male/female friend) and I don't spend as much time together as a family as I had expected.

88. Since having my last child, I have had less interest in sex.

89. Having a child seems to have increased the number of problems we have with in-laws and relatives.

90. Having children has been much more expensive than I had expected.

91. I feel alone and without friends.

92. When I go to a party I usually expect not to enjoy myself.

93. I am not as interested in people as I used to be.

94. I often have the feeling that other people my own age don't particularly like my company.

95. When I run into a problem taking care of my children I have a lot of people to whom I can talk to get help or advice.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

96. Since having children I have a lot fewer chances to see my friends and to make new friends.

97. During the past six months I have been sicker than usual or have had more aches and pains than I normally do.

98. Physically, I feel good most of the time.

99. Having a child has caused changes in the way I sleep.

100. I don't enjoy things as I used to.

101. Since I've had my child:
    1. I have been sick a great deal,
    2. I haven't felt as good,
    4. I haven't noticed any change in my health,
    5. I have been healthier.

STOP HERE — unless asked to do items below

During the last 12 months, have any of the following events occurred in your immediate family? Please check on the answer sheet any that have happened.

102. Divorce
103. Marital reconciliation
104. Marriage
105. Separation
106. Pregnancy
107. Other relative moved into household
108. Income increased substantially (20% or more)
109. Went deeply into debt
110. Moved to new location
111. Promotion at work
112. Income decreased substantially
113. Alcohol or drug problem
114. Death of close family friend
115. Began new job
116. Entered new school
117. Trouble with superiors at work
118. Trouble with teachers at school
119. Legal problems
120. Death of immediate family member

Parenting Stress Index

Profile Sheet and Norms-Form 6
R.R. Abidin-University of Virginia

Parents Name_____ Parents Sex_____ Parents Date of Birth_____
Childs Name_____ Childs Sex_____ Childs Date of Birth_____ Date_____

	Raw Score	Percentile Ranks																			Norms N=600	
		1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	99+	x	S.D.
TOTAL STRESS SCORE		131	157	170	179	188	195	201	208	214	217	221	224	228	233	239	244	250	258	267	293	320	221.1	38.9
CHILD DOMAIN SCORE		50	66	73	78	82	87	89	92	95	97	99	100	102	105	107	110	114	116	122	130	145	98.4	19.2
Adaptability		7	15	17	19	20	21		22	23		24	25		26	27		28	30	31	33	38	24.5	5.7
Acceptability		4	6	7	8	9		10		11		12		13		14		15	16	17	18	21	12.5	3.6
Demandingness		8	10	12	13	14	15		16		17		18		19	20	21		22	24	25	31	18.1	4.6
Mood		3	5		6		7		8			9		10			11		12	13	14	18	9.6	2.9
Distract./hyper.		12	16	18	19	20	21		22		23		24	25	26		27	28	29	31	33	36	24.4	5.0
Reinforces Parent		5			6			7			8		9		10			11		12	15	18	9.3	2.9
PARENT DOMAIN SCORE		69	82	90	99	102	107	110	112	115	118	121	123	126	129	132	137	141	148	153	168	188	122.7	24.6
Depression		8	12	13	15	16		17	18		19	20		21		22	23	24	26	27	30	36	20.4	5.6
Attachment		6	7	8	9		10		11			12			13		14		15	16	17	22	12.6	3.1
Restric. of Role		8	11	12	13	14	15	16		17	18		19		20	21	22	23	24	26	29	32	19.0	5.2
Sense of Competence		15	18	21	22	23	24	25	26	27	28		29	30	31	32	33	34	35	37	40	45	29.2	6.5
Social Isolation		6	7	8	9		10		11			12		13		14	15	16	17	18	20	22	12.8	3.5
Relat. Spouse		6	8	10	11	12	13		14	15		16	17		18	19	20	21	22	23	26	28	16.8	5.1
Parent Health		5	7	8		9			10			11			12		13	14	15	16	18	21	11.9	3.3
LIFE STRESS (Optional Scale)				1		2	3		4	5		6	7	8	9	10	11	12	14	17	20	27	7.9	6.6
		1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	99+		

Percentile Ranks

To profile: Circle the raw score in the row to the right of the scale

APPENDIX C

For each sentence, put an "X" beside the word which best describes your opinion. There are no right or wrong answers. Each mother has her own opinion.

Personality at School-Age

1. I think that the way babies are talked to has
   no_____ slight_____ moderate_____ strong_____
   influence on their personality when they reach school-age.

2. I think that the kind of person chosen as a babysitter has
   no_____ slight_____ moderate_____ strong_____
   influence on babies' personality when they reach school-age.

3. I think that the amount of time babies are left with someone has has
   no_____ slight_____ moderate_____ strong_____
   influence on their personality when they reach school-age.

4. I think that the age when babies are started on solid foods has
   no_____ slight_____ moderate_____ strong_____
   influence on their personality when they reach school-age.

5. I think that the amount of time babies see their relatives has
   no_____ slight_____ moderate_____ strong_____
   influence on their personality when they reach school-age.

6. I think that the kind of attention babies are given when they smile has
   no_____ slight_____ moderate_____ strong_____
   influence on their personality when they reach school-age.

Physical Growth

7. I think that things (like vitamins and proteins) in what babies eat and drink have
   no_____ slight_____ moderate_____ strong_____
   influence on their physical growth.

8. I think that reading to babies has
   no_____ slight_____ moderate_____ strong_____
   influence on their physical growth.

9. I think that the amount babies are given to eat and drink has
no_____ slight_____ moderate_____ strong_____
influence on their physical growth.

10. I think that taking babies for recommended phsycial check-ups has
no_____ slight_____ moderate_____ strong_____
influence on their physical growth.

For each sentence, put an "X" beside the word which best describes your opinion. There are no right or wrong answers. Each mother has her own opinion.

Intelligence at School-Age

11. I think that the amount of time babies see their relatives has
no_____ slight_____ moderate_____ strong_____
influence on their intelligence when they reach school-age.

12. I think that the way babies are played with has
no_____ slight_____ moderate_____ strong_____
influence on their intelligence when they reach school-age.

13. I think that the method used to teach babies to follow rules has
no_____ slight_____ moderate_____ strong_____
influence on their intelligence when they reach school-age.

14. I think that the kind of toys babies are given has
no_____ slight_____ moderate_____ strong_____
influence on their intelligence when they reach school-age.

15. I think that the kind of attention babies are given when they smill has
no_____ slight_____ moderate_____ strong_____
influence on their intelligence when they reach school-age.

16. I think that the age when babies are taught to follow rules has
no_____ slight_____ moderate_____ strong_____
influence on their intelligence when they reach school-age.

17. I think that the age when babies are started on solid foods has
no_____ slight_____ moderate_____ strong_____
influence on their intelligence when they reach school-age.

18. I think that reading to babies has
no_____ slight_____ moderate_____ strong_____
influence on their intelligence when they reach school-age.

19. I think that the amount of time babies are left with someone else has
no_____ slight_____ moderate_____ strong_____
influence on their intelligence when they reach school-age.

20. I think that the kind of person chosen as a babysitter has
no_____ slight_____ moderate_____ strong_____
influence on their intelligence when they reach school-age.

21. I think that they way babies are talked to has
no_____ slight_____ moderate_____ strong_____
influence on their intelligence when they reach school-age.

For each sentence, put an "X" beside the word which best describes your opinion. There are no right or wrong answers. Each mother has her own opinion.

Babies' Happiness or Unhappiness

22. I think that the way babies are played with has
no_____ slight_____ moderate_____ strong_____
influence on their feelings of happiness or unhappiness.

23. I think that the method used to teach babies to follow rules has
no_____ slight_____ moderate_____ strong_____
influence on their feelings of happiness or unhappiness.

24. I think that the kind of person chosen as a babysitter has
no_____ slight_____ moderate_____ strong_____
influence on their feelings of happiness or unhappiness.

25. I think that the age when babies are taught to follow rules has
no_____ slight_____ moderate_____ strong_____
influence on their feelings of happiness or unhappiness.

26. I think that the kind of attention babies are given when they smile has
no_____ slight_____ moderate_____ strong_____
influence on their feelings of happiness or unhappiness.

27. I think that the method used to toilet train babies has
no_____ slight_____ moderate_____ strong_____
influence on their feelings of happiness or unhappiness.

28. I think that the way mothers respond to babies' crying has
no_____ slight_____ moderate_____ strong_____
influence on their feelings of happiness or unhappiness.

Physical Health

29. I think that the age when babies are taught to follow rules has
no_____ slight_____ moderate_____ strong_____
influence on their physical health.

30. I think that the age when babies are started on solid foods has
no_____ slight_____ moderate_____ strong_____
influence on their physical health.

31. I think that the kind of person chosen as a babysitter has
no_____ slight_____ moderate_____ strong_____
influence on their physical health.

32. I think that things (like vitamines and proteins) in what babies eat and drink has
no_____ slight_____ moderate_____ strong_____
influence on their physical health.

33. I think that the kind of toys babies are given has
no_____ slight_____ moderate_____ strong_____
influence on their physical health.

34. I think that taking babies for recommended physical check-ups has
no_____ slight_____ moderate_____ strong_____
influence on their physical health.

For each sentence, put an "X" beside the word which best describes your opinion. There are no right or wrong answers. Each mother has her own opinion.

Mothers' Happiness or Unhappiness

35. I think that the amount of time babies are left with someone else has
no_____ slight_____ moderate_____ strong_____
influence on mothers' feelings of happiness or unhappiness.

36. I think that babies' sleeping patterns have
no_____ slight_____ moderate_____ strong_____
influence on mothers' feelings of happiness or unhappiness.

37. I think that the kind of person chosen as a babysitter has
no_____ slight_____ moderate_____ strong_____
influence on mothers' feelings of happiness or unhappiness.

38. I think that the way brothers and sisters get along with babies has
no_____ slight_____ moderate_____ strong_____
influence on mothers' feelings of happiness or unhappiness.

APPENDIX D

INTRODUCTION TO SELF-RATING SCALE

The following should be read verbatim to each student before beginning.

"I AM GOING TO READ SOME SENTENCES WHICH MAY OR MAY NOT BE TRUE FOR YOU. IN ORDER TO TELL ME WHETHER THE QUESTIONS ARE TRUE FOR YOU OR NOT, WE ARE GOING TO USE THESE CARDS. (show display cards). FOR EXAMPLE, IF THE STATEMENT SAID:

I EAT ICE CREAM 1 2 3 4 5 0

YOU WOULD PICK THIS CARD (point to never) IF YOU POSITIVELY DO NOT EAT ICE CREAM. YOU WOULD CHOOSE THIS CARD (point to rarely) IF YOU VERY OCCASIONALLY EAT ICE CREAM. THE MIDDLE CARD (point to sometimes) WOULD BE USED IF YOU EAT ICE CREAM ON SOME OCCASIONS BUT NOT OTHERS. IF YOU EAT ICE CREAM FREQUENTLY, YOU WOULD PICK THIS CARD (point to usually) AND THIS CARD (point to always) WOULD BE USED IF YOU EAT ICE CREAM ALL THE TIME.

PLEASE RATE YOUR BEHAVIOR ACCORDING TO HOW YOU ACT, NOT HOW YOU THINK YOU SHOULD ACT. CERTAINLY, THERE ARE NO RIGHT OR WRONG ANSWERS ON A SCALE LIKE THIS ONE. DO YOU UNDERSTAND? LET'S TRY ANOTHER ONE FOR PRACTICE.

I DON'T LIKE TO DANCE 1 2 3 4 5 0

(STRESS DOUBLE NEGATIVE IDEA TO REDUCE MISINTERPRETATION. IF STUDENT HAS DIFFICULTY, USE "I DON'T EAT PICKLES" AS ANOTHER EXAMPLE).

DO YOU HAVE ANY QUESTIONS BEFORE WE BEGIN?"

SELF-RATING SCALE

*A.	I THINK BEFORE I ACT.	5	4	3	2	1
B.	I MAKE UP MY MIND QUICKLY	1	2	3	4	5
C.	I MAKE UP MY MIND EASILY	1	2	3	4	5
*D.	I LIKE MATH.	5	4	3	2	1
E.	I LIKE TO DO THINGS ON THE SPUR OF THE MOMENT.	1	2	3	4	5
*F.	I LIKE TO DO CROSSWORD PUZZLES.	5	4	3	2	1
*G.	I LIKE CLASSICAL MUSIC.	5	4	3	2	1
H.	I BECOME IMPATIENT.	1	2	3	4	5
*I.	IT'S EASY FOR ME TO CONCENTRATE ON MY WORK.	5	4	3	2	1
J.	MY INTERESTS TEND TO CHANGE QUICKLY.	1	2	3	4	5
K.	I LIKE DETAILED WORK.	1	2	3	4	5
L.	I LIKE TO TAKE A CHANCE JUST FOR THE EXCITEMENT.	1	2	3	4	5
M.	I LIKE WORK INVOLVING COMPETITION.	1	2	3	4	5
*N.	I LIKE TO SOLVE COMPLEX PROBLEMS.	5	4	3	2	1
O.	IN WATCHING GAMES, I YELL ALONG WITH THE CROWD.	1	2	3	4	5
P.	I LIKE WORK THAT HAS A LOT OF EXCITEMENT.	1	2	3	4	5

*Q.	I CONSIDER MYSELF CAREFUL.	5	4	3	2	1
*R.	I LIKE WORK REQUIRING PATIENCE.	5	4	3	2	1
S.	I CONSIDER MYSELF HAPPY-GO-LUCKY.	1	2	3	4	5
T.	I LIKE TO BE WHERE SOMETHING EXCITING IS GOING ON.	1	2	3	4	5
U.	AS A YOUNGSTER, I TOOK PART IN RISKY STUNTS.	1	2	3	4	5
V.	I FEEL "ON TOP OF THE WORLD".	1	2	3	4	5

*STARRED ITEMS HAVE BEEN REVERSED FOR SCORING.

APPENDIX E

Twenty-five Variables entered for NKIDS
* indicates those that entered Summary Table 40

1. BEAT-Have you ever been beat up?
2. MALEPR-How many years was a male present in your home?
3. INSCHOOL-Are you in school now?
* 4. WORK-Dou you work?
5. MD-Did your biological mother raise you?
* 6. BF-Do you still see the father of your first born?
* 7. CF-Are you close to your family?
* 8. ADULT-Who do you live with?
* 9. HBFA-Does the father of your first born help?
10. HPGP- Do the paternal grandparnets of your first born help?
11. FN-How do you feel about the baby's father now?
12. FRPG- Do you have many friends who got pregnant before the age of 19?
*13. TALKFAM-Can you talk to your family when having a problem?
14. TALKFR-Can you talk to your friends when having a problem?
*15. TALKBOYFR-Can you talk to your boyfriend when having a problem?
*16. TCHR-When in school did you or do you talk to a teacher or counselor when having a problem?
*17. ALC-Do you use drugs or alcohol when depressed?
18. KIDDCFS-Are any or have any of your children been placed with DCFS?
19. DRUGS- Does anyone in your immediate family use drugs?
20. PROBNOW-Do you have any big problems to deal with now?
21. DRUNKFAM-Does anyone in your immediate family get drunk alot?
22. IMPTOT-Total score on Impulsivity Survey
*23. ICITOT-Total score on Infant Caregiving Inventory-Revised
24. PSICDT-Total score on PSI-Child Domain
25. PSIPDT-Total score on PSI-Parent Domain

APPENDIX F

Sixteen Variables entered for NKIDS-SUCESS
*indicates those that entered Summary Table 45

*1. ADULT-Who do you live with?
2. INSCHOOL-Are you in school now?
*3. WORK-Do you work?
4. PROBNOW-Do you have any big problems to deal with now?
5. PH-How do you handle the problem?
6. ALC-Do you drugs or alcohol when depressed?
7. LIVEMAR- Do you think you will live with or marry the father of your first born?
8. WORKLOT-When unhappy do you fill your time by working around the house?
9. MONEY-Are you or your child/children receiving Public Aid?
10. JOB-Do you wnat a job?
11. ICITOT-Total score on Infant Caregiving Inventory
12. IMPTOT-Total score on Impulsivity Survey
*13. PSIPDT-Total score on the PSI-Parnet Domain
14. PSICDT-Total score on the PSI-Child Domain
15. NOTSCHGR-If not in school what grade were you in when you left?
16. BRIGHT-When things get rough do you tell yourself to look on the bright side?

APPENDIX G

Twenty Two Variables entered for NKIDS-DISTRESS
*indicates those entered in Summary Table 50

*1. ADULT-Who do you live with?
*2. WORK-Do you work?
3. PROBNOW-Do you have any big problems to deal with now?
4. PH-How do you handle the problem?
5. MONEY-Are you or your child/children receiving Public Aid?
*6. CF-Do you fell close to your family?
7. BEAT-Have you ever been beat up?
*8. SEXAB-Have you ever been sexually abused?
*9. DIE-Has anyone close to you died recently?
*10. ILL-Has anyone close to you been ill?
*11. RPG-How did your mother react when you told her you were pregnant with your first child?
*12. LEAVE-Have you ever been told to leave the house?
13. CMALE-How close were you to your dad/stepdad?
14. HBFA-Does the father of the first born help?
*15. ALC-Do you use drugs or alcohol when depressed?
*16. MOMDEAD-Is your mom dead?
*17. DADDEAD-Is your dad dead?
18. KIDSDCFS-Are any or have any of your children been placed with DCFS?
*19. PROBSCH-Did you or do you have any problems while in school?
*20. INSCHOOL-Are you in school now?
21. DRUNKFAM-Does anyone in your immediate family get drunk a lot?
22. DRUGS-Does anyone in your immediate family use drugs?

APPENDIX H

Parental Informed Consent Form

Project Title: A Cross-Sectional Comparative Study of Urban African-American Primiparous Adolescent Mothers

I, _____, the parent or guardian of _____, a minor of ____ years of age, agree to let her take part in a research project being conducted by Dianne Stone.

I understand that the purpose of this research is to better understand young mothers and how they care for their infants. This will be discovered through an interview as well as three surveys. Both the reason for this research and what my daughter will be doing while taking part have been explained to me and I understand the explanation. I further understand that no risk is involved but, in any case, I may have my daughter quit the study at any time and nothing bad will happen.

I understand that my daughter does not have to answer any questions that she doesn't want to. I understand that the answers to all questions will remain confidential with regard to my daughter's identity. Only a number will appear on the questionnaires and not my daughter's name.

I acknowledge that the study has been explained to me and after it is over I can receive a copy of the results without charge if I want.

_____ _____

Signature of parent/guardian Date

Informed Consent Form

Project Title: A Cross-Sectional Comparative Study of Urban African-American Primiparous Adolescent Mothers

I agree to take part in the research being conducted by Dianne Stone. The purpose of the research and what I will be asked to do has been explained to me and I understand the explanation. I also understand that I may quit when I want to and nothing bad will happen to me.

I understand that I do not have to answer any questions that I don't want to. I also understand that the answers to all questions will remain confidential with regard to my identity. Only a number will appear on the questionnaires and not my name.

I have been told that I may receive a copy of the results without charge if I want.

_____ _____

Signature of volunteer Date

_____

Age

APPROVAL SHEET

The dissertation submitted by Dianne F. Stone has been read and approved by the following committee:

Dr. Martha E. Wynne, Director
Associate Professor, Counseling and Educational Psychology, Loyola

Dr. Carol G. Harding
Associate Professor & Chairperson, Counseling and Educational Psychology, Loyola

Dr. Ronald R. Morgan
Associate Professor, Counseling and Educational Psychology, Loyola

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

April 17, 1992
Date

Martha Ellen Wynne
Director's Signature