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FAMILY ENVIRONMENT, AFFECT, AMBIVALENCE, AND DECISIONS
ABOUT UNPLANNED ADOLESCENT PREGNANCY

DISSERTATION

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This study investigated the relationships among family environment, demographic measures, the decisions made by unintentionally pregnant adolescents regarding post-delivery plans (stay single, get married, adoption), and the certainty with which these decisions were made. The Information Sheet, Family Environment Scale (Moos & Moos, 1981), and Multiple Affect Adjective Check List (Zuckerman & Lubin, 1965a) were administered to 175 pregnant adolescents, ages 14 through 22, who intended to carry their pregnancies to term. Pearson product-moment correlations and multiple regression analyses were utilized to assess the relationships between family environment and certainty of decision and between family environment and negative affect. Greater uncertainty was associated with nonwhite racial status and living with both natural parents or mother only. Higher levels of negative affect were related to lower levels of perceived family cohesion, independence, expressiveness, and intellectual-cultural orientation. The demographic variables of age, trimester of pregnancy, and family constellation were also found to be useful in predicting levels of negative affect.

Subjects who were older, further along in their pregnancies, and living with both natural parents or mother only tended to report greater negative affect. Findings of greater uncertainty and negative affect associated with living with the natural mother are consistent with previous reports of disturbed mother-daughter relationships among this population. Discriminant analysis revealed that subjects choosing adoption were more likely to be older and to be white than those choosing to keep the child. They also tended to perceive higher levels of expressiveness and independence in their families. Comparisons between the present sample and "normal" families revealed differences which were statistically significant, but quite small in terms of raw score units. Indeed, these groups may be more similar than has often been assumed. The implications of these findings for the delivery of services and for future research efforts in this area were discussed. More intensive assessment of family functioning is needed. Based upon present results, further investigation of the family constellation variable is warranted.

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CHAPTER I
FAMILY ENVIRONMENT, AFFECT, AMBIVALENCE, AND DECISIONS
ABOUT UNPLANNED ADOLESCENT PREGNANCY

Description

A study published by the U.S. Department of Health, Education, and Welfare in 1979 reported that the proportion of sexually active teenage women rose 300 percent during the years from 1967 to 1976 (Chilman, 1979 cited in Baumrind, 1981). Likewise, the pregnancy rate among teenagers is rising (Alan Guttmacher Institute, 1981). However, due to the increased availability of contraceptives and the legalization of abortion, the overall birthrate (births per 1,000 women) for teenagers 15-19 years old has decreased by 22 percent since 1970 and 41 percent since 1960 (based on 1980 levels; National Center for Health Statistics, 1984). This mirrors the trend evidenced by women of all ages toward a decreased birthrate (Baumrind, 1981). There has been an increased effort among teenage women to actively prevent pregnancy and birth. The use of contraceptives has become more common among this age group (Zelnick & Kanter, 1977) as has abortion (Alan Guttmacher Institute, 1981). Between 1972 and 1975, the abortion rate for teenagers increased by three-fifths (Baumrind, 1981), this brought about largely by the legalization of abortion through the 1973 Supreme Court

decisions, *Roe vs. Wade* and *Doe vs. Bolton* (Dowben & Bunch, 1980). While contraception and abortion rates are increasing, the option of giving birth while remaining unmarried is also being chosen by an increasing proportion of teenagers. The "illgitimacy rate" for women between the ages of 15 and 19 increased from 15.1 per 1,000 women in 1955 to a rate of 24.2 in 1975 (Baumrind, 1981). The 24.2 births per 1,000 women constituted 42 percent of the total birthrate for women in that age group in 1975.

In 1980, the total birthrate for women aged 15-19 was 53 per 1,000. For Blacks, the rate was almost twice the total rate (100 per 1,000; National Center for Health Statistics, 1984). Although the birthrates in all age groups are decreasing, teenagers make up an increasing proportion of the women who have babies (Baumrind, 1981).

Studies have attempted to identify important characteristics of women who have experienced unplanned pregnancies. Other than their lack of effective contraceptive behavior, young women who have become pregnant have not been found to clearly differ from those who have not on such variables as knowledge of contraception (De Amicis, Klorman, Hess, & McAnarney, 1981), self-concept, and ego development (Babikian & Goldman, 1981; Held, 1981; Patten, 1981; Protinsky, Sporakowski & Atkins, 1982).

Research is reviewed here which has found the variables of family environment, decision-making, and emotional

reactions to be important in the study of problem pregnancy among adolescents. First, literature is reviewed which has assessed the consequences of adolescent childbearing and motherhood as well as the reactions of women to abortion. The emphasis is on the immediate consequences of these situations. Following this review is a description of research which has assessed the effects of family characteristics on decision-making and outcomes associated with adolescent pregnancy.

Consequences of Adolescent Childbearing

The consequences of the decisions which adolescents have made about resolving unplanned pregnancies have received much attention. For those who have decided to give birth to their babies rather than abort, many difficulties have been found (Alan Guttmacher Institute, 1981; Brown, 1982; Furstenberg, 1976; Juhasz, 1974). These young women have been shown to be more likely than their peers without children to drop out of high school, earn lower wages, have larger than average families and experience divorce. The trend toward higher divorce rates is more pronounced among whites than nonwhites (Alan Guttmacher Institute, 1981; Furstenberg, 1976). Among the most pressing problems brought on by adolescent childbearing have been "housing, continuing education or vocational training, child care and health care " (Juhasz, 1974, p. 270).

Dott and Fort (1972) compared the infant mortality rate of infants born to young teenagers (ages 1-14) and those born to older women (ages 15-19, 20-24, 25-29, 30-34, 35-39, and 40+). They also assessed the effects of variables such

as amount of prenatal care, type of hospital in which the birth took place, and whether a woman was married or not, on the dependent variables of infant death, prematurity, and birthweight. They found that the infant mortality rate was greater for offspring of married mothers than for those of unmarried mothers. Prenatal care had a strong relationship to infant death for all ages. The infant mortality rate was 83.4 per 1,000 births when the mother made no visits to the doctor prior to giving birth and 10.6 per 1,000 when she made nine or more visits. Young teenagers received less prenatal care than older women. Eighteen percent of the girls below 14 years of age received no prenatal care. Only 23 percent of them visited the doctor nine or more times versus 62.5 percent for older women. Dott and Fort (1976) concluded that, while young teenager mothers had the potential to perform as well obstetrically as older mothers, the outcome was not always positive.

The burden of young motherhood falls most heavily upon the offspring of these mothers. Increased fetal wastage, infant morbidity (premature, neurologic deficits), and infant death are the greatest medical risks associated with teenage pregnancy. Despite the most favorable conditions, a higher prenatal mortality and prematurity rate is reported compared to control groups. On the other hand, the provision of high quality antenatal supervision contributes markedly to the reduction of

morbidity and deaths in the mother and child alike. Under optimal conditions, the medical risk of the child and mother does not differ appreciably from that of the population as a whole but the availability of such optimal conditions is rare because the early teenage mother is generally poor, black, and medically and nutritionally unsophisticated (Dott & Fort, 1976, p. 535).

Another study focused on the differences between adolescent and older mothers. Gunter and LaBarba (1981) compared 60 low income, pregnant adolescents with 60 low income, pregnant adults with equal numbers of Blacks and Caucasians in each group. All subjects had yearly incomes of less than \$8,000. These groups were compared with regard to maternal and infant biological variables such as anemia, toxemia (the presence of toxins in the blood), prolonged labor, maternal complications, low birth weight, infant complications, and overall complications. They were also compared with regard to state and trait anxiety as measured by the State-Trait Anxiety Inventory and state and trait depression and hostility as measured by the Multiple Affect Adjective Check List (MAACL). Assessments were done before and after the birth. It was found that younger mothers did not differ from older mothers on any of the medical measures except birth weight of the child. Younger mothers with lower weight gain, prepregnant weight, and hemoglobin who sought prenatal care later in

the pregnancy were more likely to have babies that weighed less. Measures of state anxiety, hostility, and depression showed a decrease after the birth for both groups. Caucasian adolescent mothers scored higher on state depression both before and after the birth than did older, Caucasian mothers. Black adolescent and control (older) mothers did not differ significantly from Caucasian adolescent mothers. Black control mothers evidenced higher levels of state depression than did Caucasian control mothers both before and after the birth. The mothers in this study were not found to exhibit anxiety, hostility, or depression which would be considered above normal either before or after the birth. The lower scores on these measures postpartum seemed to reflect a state of increased feelings of well-being possibly due to relief that the birth was over (Gunter & LaBara, 1981).

Using a structured interview format, problem areas encountered by adolescent mothers and their coping methods were assessed about one year after the birth of the child (Colletta, Hadler, & Gregg, 1981). Most concern was shown by these subjects (64 Black, adolescent, unwed mothers) over how peer relations had changed since the birth. Increased isolation was reported by about two-thirds of the mothers. Seventy-six percent reported only mildly negative strain between themselves and their parents. About one-half the sample reported feeling pressured by child care concerns.

Roosa, Fitzgerald, and Carson (1982) compared a group of teenage mothers (15-19 years old, N = 17) to a group of older mothers (20-32 years old, N = 50) with regard to the medical aspects of the births, attitudes toward their children, home environment, socioeconomic status, and demographic variables such as income of household and education level of the adolescents' father. The sample was made up almost exclusively of white women. Visits were made to the homes of the subject one, two and three months after the birth of the child. Results indicated that the teenage mothers came from homes where the income was lower and the father's level of education was lower than was the case for older mothers. Teenage mothers had not sought prenatal care as early as the older women, but there were no differences between the groups with regard to medical complications during the pregnancy or delivery. There were no differences between groups on measures of attitudes toward the child (positive versus negative). Group differences were found on home environment comparisons. Homes of teenage mothers were more densely inhabited. A smaller percentage of teenage homes had a quiet place for the baby or a mobile over the crib. Older mothers talked to the infant more and were more responsive to the child.

Citing evidence from previous studies that children born to teenage mothers were more likely to be developmentally retarded in several areas, Roosa et al., suggested that factors such as excess social stimulation, lack of nonsocial

audio-visual stimulation (toys, mobiles), and insufficient maternal responsiveness may contribute to the deficits observed in the children of teenage mothers. They pointed out, however, the striking similarities between the two groups in several areas including pregnancy, delivery, and attitudes toward the child.

Brown (1982) reviewed the current status of the different types of services available to adolescent mothers. She reported findings of a national survey of public agencies offering help to teenage mothers and their children. She stated that, especially in the case of low income, minority adolescents, early childbearing was a "major pathway to poverty" (p. 398). The findings of the survey indicated that adoption services were provided to only 1.5 percent of Black teenage mothers and a similar percentage of Hispanic teenage mothers served by the public agencies. In contrast to this was the 15 percent rate for Caucasian teenage mothers. The difference may reflect a greater willingness on the part of agencies to provide Caucasians with adoption services or it may be that Blacks and Hispanics were less willing to give their babies up for adoption. Brown also reported that training in home management and child care was badly needed among teenage parents, but too rarely provided. "Thirty percent of White and 19 percent of non-White teenage mothers who were served by child welfare agencies in 1977 were cited for child neglect" (p. 405). None of these were provided

family homemaker services. Only 22 percent of all teenage mothers were provided family planning services. The lowest rate was among Hispanics where this may be due, in part, to religious constraints on contraception. Brown cited limited funds as the primary reason for lack of services to the teenage parent. She concluded that the outlook is dim for the 600,000 teenage girls who carry their babies to term each year as only one in five pregnant teenagers and teenage mothers needing services have been accommodated by public agencies.

The serious long-term consequences of adolescent child-bearing have been most extensively described by Furstenberg (1976). During the years 1966 to 1968, a longitudinal study was initiated by conducting interviews with women who were age 18 or older and pregnant for the first time. Eighty-one percent of the final sample (N = 323) were unmarried at the time of the first interview. Ninety-one percent were Black and the rest were White. This was a sample of girls from lower and working class families living, for the most part, near the poverty level. Four interviews took place during the study. At Time 1, the pregnant adolescent and her mother were interviewed. At Time 2, the adolescent mother was interviewed about one year after the delivery of her child. At Time 3, the adolescent mothers were interviewed as well as a sample of their female classmates. This occurred three years after the delivery of the child. The final interviews, Time 4, were

conducted with the adolescent mothers, the classmates, and with the five-year-old children of the adolescent mothers. Furstenberg reported the pervasive effects that childbearing had on the lives of the adolescent mothers. He also attempted to explain the factors which mediated these effects. He described the process by which a teenager bears a child out of wedlock in terms of a sequence of four decisions. These decisions concern the early onset of sexual relations, poor birth control habits, a decision to have the baby, and a decision not to marry. Furstenberg reported that there was a general pattern of lower sexual activity among subjects from more highly educated families who themselves had higher educational ambitions. The author suggested that family attitudes about education and early dating played a part in the first stage of becoming a teenage mother, i.e., becoming sexually active. It was found that these young women also exhibited an inconsistent pattern of sexual activity and limited knowledge of birth control methods. Family factors were again relevant as only about half of the adolescent mothers had discussed birth control with their own mothers. Those who had discussed it were twice as likely to have had some experience with birth control. Girls from more sexually permissive families were more likely to have had experience with birth control than those with mothers who strongly disapproved of premarital sexual relations. The decision whether to legitimize the birth by marrying prior to delivery

appeared to be influenced by four factors. First, those girls under 15 years of age rarely married (one in 10 married) before delivery while those 17 and older married somewhat more frequently (one in three married). Second, marriage tended to occur when the couple had realized their minimal educational goals. Third, marriage was more likely when the male had a job and the female had some work experience. Finally, women under strong social pressure to marry were more likely to do so. For those marriages that did occur during the course of study, there was over a 50 percent chance of dissolution. The author concluded that the best explanations for this high rate of marital failure were that premarital pregnancy disrupted the process of courtship and preparation for marriage and, more importantly, that the male was unable to financially support a family.

Over the course of the study, one third of the adolescent mothers became pregnant at least twice since the initial pregnancy. One third had one pregnancy beyond the initial one, and one third had not conceived again. There was a trend toward single mothers with higher educational ambition being less likely to conceive again. With regard to educational achievement, half the young mothers finished high school during the study as compared to 80-90 percent of the classmate sample. The influence of the family was important in this respect. Two-thirds of the girls whose mother had low educational expectations of them dropped out of high school. Only one-fifth of those girls

expected by their mothers to finish high school did not do so. If the young mothers married or experienced a second pregnancy, their chances of completing high school were small.

Economically, the adolescent mothers were more likely to be unemployed and receiving welfare than the classmate sample. The time and energy burden of singleparenthood, lack of training, age, and problems with child care were factors contributing to the teenage mothers' higher unemployment and more severe financial distress. Nevertheless, most of the young mothers made an adequate adjustment to motherhood in terms of enjoying time with their children and the level of satisfaction they felt regarding their own maternal performance.

Assessment of the cognitive and social functioning of the children born to the adolescent mothers revealed the children of adolescent mothers were less equipped in terms of cognitive skills than the children of their classmates and those in a sample of preschoolers assessed for the purpose of comparison. This deficit was strongly related to socioeconomic background. Children who had continuous contact with their fathers did better intellectually and socially. In addition, there was an advantage, for the children, in growing up in a household headed by a couple if the mother had not finished high school. This advantage was in relation to children with single parents who had not graduated.

Thus, the long-term consequences of adolescent child-bearing have been shown to be lower educational and vocational achievement (Alan Guttmacher Institute, 1981; Furstenberg, 1976), larger families, and greater chance of divorce (Furstenberg, 1976). Medical risks to the baby are increased by insufficient prenatal care which is characteristic of adolescent mothers (Dott & Fort, 1976). The children have been shown to be at increased risk of cognitive disadvantage and difficulty in social adjustment (Furstenberg, 1976). Services by public agencies such as training in home management and family planning are lacking (Brown, 1982).

Family environment has been found to be important in the birth control behavior of adolescents who become pregnant as well as in their decisions about marriage in the face of unplanned pregnancy. Emphasis on education was shown to be related to early sexual activity, repeated conception, and economic problems (Furstenberg, 1976).

In the realm of emotional reactions to adolescent motherhood, no clear evidence was found for excessive anxiety, hostility, or depression immediately prior to and after the birth (Gunter & LaBarba, 1981) although Caucasian adolescent mothers evidenced greater depression than older Caucasian mothers. Feelings of isolation were reported at one year follow-up (Colletta et al., 1981). Only one of the studies assessed the emotional experience of the pregnant adolescent near the time of the birth of the baby (Gunter & LaBarba,

1981). While information about the long-term consequences of adolescent childbearing is valuable to the mental health worker, more information regarding the emotional experience of the young woman during pregnancy would be useful. Gunter and LaBarba (1981) studied anxiety, hostility, and depression as these differed or did not differ among pregnant women of different ages and races. It would also be important for the counselor to understand how these emotions relate to different family environments. A treatment program for pregnant adolescents has emphasized the importance of the family in dealing with the unplanned adolescent pregnancy (Abel, Jackson, Fein, Al-Sagaf, & Shuster, 1982).

Consequences of Abortion

Much research during the past 50 years had addressed questions concerning the consequences of abortion for the woman receiving it. Early work was often unsystematic, anecdotal, and influenced to a large degree by the negative attitudes which researchers held toward abortion (David, 1972; Simon & Senturia, 1966). In the mid-1960's, research began to appear which approached the problem of abortion and its consequences in a more objective way. Some of the weaknesses in research design noted by Simon and Senturia (1966) began to be corrected. The psychiatric status of the patient prior to the abortion procedure has received attention, followup procedures have been utilized, and greater clarity has been achieved with regard to reporting methods

and procedures. In general, research has not found evidence of severe psychological consequences following abortion (Osofsky, Osofsky, Rajan & Spitz, 1975; Simon & Senturia, 1966). In studies which did note incidences of psychological disturbance, it was reported that the woman often did not want to give up the baby or was in conflict with parents or husband over the abortion (Peck & Marcus, 1966; Simon, Senturia & Rothman, 1967; Smith, 1973). Women who have shown psychological disturbance prior to abortion have been found to weather the experience without exacerbation of symptoms or with some improvement in functioning (Niswander, Singer, & Singer, 1972; Schmidt & Priest, 1981; Simon et al., 1967).

An important factor must be kept in mind when considering implications of abortion research to date. Much of the work has dealt with abortions performed prior to the 1973 Supreme Court decisions which essentially legalized abortion. The women involved were required to show cause, either psychological or physical, that continuing the pregnancy would pose a threat to their well-being or that of the baby. Thus, a selection factor was in operation which likely resulted in a sample unrepresentative of the population of women seeking abortion today. Under present laws, the decision to terminate a pregnancy or not is between a woman and her physician (Dowben & Bunch, 1981). It might be expected that women seeking abortion today would be less likely to be psychologically or physically impaired.

Schmidt and Priest (1981) assessed the level of hostility of 57 adult abortion patients prior to abortion, at a one to 17 month followup, and at a three to six year followup. Using the Hostility and Direction of Hostility Questionnaire, it was found that hostility reported prior to abortion was above normal based on previous research with the instrument. A direction of hostility score was obtained from test scores which indicated that the hostility experienced by the women was directed inward. They reported feeling hostile toward themselves. Hostility was found to decrease with time after the abortion to a normal level.

Payne, Kravitz, Notman, and Anderson (1976) found that interviewer ratings of adult abortion patients' anxiety, depression, anger, guilt, and shame were highest at preabortion assessment. Black women with previous out-of-wedlock children reported less anxiety. At a six month followup, all five affects were significantly lower than preabortion levels. Adler (1975) found that positive feelings of happiness and relief were experienced more strongly than shame, guilt, fear of disapproval, regret, anxiety, depression, doubt, and anger when abortion patients (17 years and older) were interviewed two and three months postabortion. Preabortion difficulty in making the decision was positively related to the intensity of the internally based negative emotions (regret, anxiety, depression, doubt, and anger).

Lask (1975) assessed abortion patients (age range not reported) prior to and six months after the abortion. This

consisted of performing a mental status exam with particular attention paid to evidence of feelings of guilt, regret, self-reproach, and loss. The severity of these was rated on a four-point scale. Ambivalence was also observed and rated. Three questionnaires were administered; the Hamilton Modified Rating Scale for Depression, the Zung Self-Rating Scale, and the Eysenck P.E.N. Inventory (this last scale was not described any more fully). On the basis of the results of these procedures, Lask developed a scale to identify those patients who were "at risk" for an unfavorable outcome. This scale assessed whether a woman: was deserted by her partner, was between 21 and 30 years of age, was foreign born (outside England), had been pregnant before, had a history of psychiatric illness, had existing psychopathology, and was ambivalent about the abortion. The more of these conditions a woman satisfied, the greater the chances were for an unfavorable outcome. An unfavorable outcome was one in which the woman regretted the abortion, had moderate to severe feelings of guilt, loss, or self-reproach, and evidenced greater severity of mental illness than before the abortion. In Lask's study, 68 percent of the outcomes were favorable and 32 percent were unfavorable.

Greer, Lal, Lewis, Belsey, and Beard (1976) found that feelings of guilt as rated by interviewers and depression as measured by the Hamilton Rating Scale for Depression decreased significantly from preabortion levels when assessed at three

month follow-up. Another study found indications of improvement over preabortion functioning for a group of abortion patients. Niswander et al., (1972) compared abortion patients with five groups of hospital patients awaiting various types of operations. These were: childbirth, hysterotomy and tubal ligation, minor gynecological procedure, tubal ligation alone, childbirth and tubal ligation. Groups were compared on the basis of overall psychological adjustment, depression, anxiety, and impulsivity. These dimensions were measured by a psychologist's ratings based on results of the Minnesota Multiphasic Personality Inventory. Abortion patients showed less favorable ratings on all four variables at preoperative evaluation than the other group. At follow-up six months later, the abortion group showed significant improvement but was still rated as more depressed and less adjusted than the other patient groups.

Moseley, Follingstad, and Harley (1981) administered the Multiple Affect Adjective Check List (MAACL) to 62 women, ages 14-35, who obtained abortions. Assessment was done prior to abortion and immediately following the procedure. It was found that Black women scored lower on preabortion anxiety and postabortion hostility than Caucasians but had a more difficult time making the decision to abort. Perceived support from the partner was associated with lower preabortion anxiety. Negative feelings toward partner were associated with higher preabortion anxiety, hostility, and depression, and postabortion

hostility. Women who made their decision to abort alone had an easier time with the decision, but higher levels of depression. Greater ease of decision-making was related to greater feelings of hostility.

Assessment of the emotional reactions of women who have decided to seek abortion but have not yet been through the procedure has yielded the following picture. These women have been found to experience greater than average hostility (Schmidt & Priest, 1981) and marked, though not abnormal levels of anxiety, depression, guilt, and shame. Anxiety is lower for black women with previous out-of-wedlock children (Payne et al., 1976). After the abortion, the levels of negative emotions have been shown to decrease. Immediately following the procedure and at rather short-term follow-ups (less than six months), a majority of women were not hampered by negative reactions such as guilt, depression, self-reproach, anger, and shame (Adler, 1975; Lask, 1975; Smith, 1973). Feelings of relief were experienced strongly (Adler, 1975), and there has often been a positive change in psychological condition during the postabortion period (Greer et al., 1976; Niswander et al., 1972; Payne et al., 1976; Schmidt & Priest, 1981; Simon et al., 1967).

Based upon research findings to date, the effects of abortion on the lives of young women can be described as emotionally distressing. On the other hand, adolescents who terminate an unplanned pregnancy may avoid the long-term negative consequences of teenage motherhood which have been

well-documented. Those who carry their pregnancies to term represent a major challenge to public education. They are more likely than their nonchildbearing peers to draw welfare payments. They are also more likely than others to bring their children up in broken homes. Finally their children are at risk for cognitive and social difficulties.

Family Influence on Decision-Making

The study of the decision-making of pregnant adolescents has focused on the decision whether or not to terminate the pregnancy by abortion. However, if the young woman decides to bear her child, her decisions have just begun. Other questions remain such as, "Will the child be placed for adoption?", "If not, who will participate in raising the child?", "Should marriage be considered under these circumstances?" While these decisions have been addressed (Furstenberg, 1976), the influence of the family has not been the focus of systematic, objective measurement. While the following studies deal only with the decision about abortion versus having the baby, the results are nevertheless instructive in that they point out the importance of family-related variables in the decision process of young women experiencing unplanned pregnancy.

Studies which have assessed family relationships and decisions made by women experiencing unplanned pregnancy have yielded mixed findings with regard to the relationship between these variables. Swigar, Breslin, Pouzner, Quinlan, and Blum (1976) interviewed 27 women (ages 13-14) by telephone

who had sought abortion at a New England clinic and then changed their minds, deciding to carry the pregnancy to term. Interviewers asked the women about possible reasons for this change of plans, such as financial difficulties, changes in marital status, family pressures, and moral objections. Six factors emerged from these interviews as the most important reasons for deciding against abortion. In order of importance these were: religious or moral objections to abortion, the partner desired the baby, a fear of the abortion procedure, equating abortion with loss of part of self, getting married, and resistance to family's wish for abortion. Three of these factors were interpersonal in nature. The desires of the women's partners played a part in changing their minds as did the desires of the family, although these factors had opposite effects. The women tended to conform to their partners' wishes and rebel against those of their parents. Swigar et al., state that those who rebelled were usually adolescents. Another factor, religious and moral objections, is also related to family influence in that these types of beliefs have generally been thought to be affected by experience in the family (Bandura, 1977).

Leynes (1980) examined the records kept during the stays of 32 pregnant adolescents at a home for unwed mothers in the Philippines. About one-third of these girls (ages 14-20) were Caucasian, one-fourth were part Hawaiian, almost one-fifth were Japanese, and the rest of the sample consisted of girls of

Mexican, Filipino, and mixed descent. Ratings were made, from the records, of the socioeconomic status and level of psychological functioning of each girl. In addition, ratings were made of the degree to which parents and partner in conception were involved in the decision to keep the baby or give it up for adoption. Only two variables were found to be correlated with the girl's choice. These were level of psychological functioning and male partner influence. The higher the level of functioning was rated, the more likely the girl was to give her child up for adoption. Involvement in the decision of the male partner was predictive of the adolescent mother keeping the child. Parental involvement was not found to be related to the decision of the girl. Although no specific data were given regarding the adolescents' relationships with their parents, Leynes stated that most had a history of conflict with their parents as evidenced by running away from home and similar minor legal offenses.

Kerenyi, Glascock and Horowitz (1973) attempted to find differences between women who obtained abortions in the first versus the second trimesters of pregnancy. They administered a questionnaire to these two groups at bedside before the subjects were discharged from the hospital. Several demographic variables were assessed including age, race, marital status, occupation, income, and number of siblings. The subjects were also asked who was the head of the household during their childhood. With regard to the pregnancy and

abortion, subjects were asked when they discovered they were pregnant, the number of previous pregnancies, their reasons for abortion, whether they told their parents about the pregnancy, and the degree of influence other people had on their decision to abort. The 400 subjects ranged in age from under 16 to over 40 with the greatest proportion being from 17 to 25 years. No statistical tests of significance were reported, only percentage data. Little difference was found between groups with regard to demographic variables. Twice as many early-aborters as late-aborters consulted their doctor after one missed menstrual period. A large segment of both groups (40 percent) cited social pressure and financial strain as major reasons for the abortion. Only about one-half of each group told their parents about the pregnancy. The majority of both groups denied that their decision for abortion was influenced by anyone else. It is unclear, from these findings, whether family relationships had anything to do with either the decisions of the women to abort or the seeking of abortion during the first versus the second trimester of pregnancy.

Difficulty in making the decision about resolving an unwanted pregnancy has been assessed by Rosen (1980) and Moseley et al., (1981) as it relates to the involvement of the family in the decision. Rosen's study involved pregnant females under 18 years of age (250 white and 182 black). Rosen gave subjects a questionnaire designed to assess the girl's perception of the involvement of her mother, father,

parents combined, peers, girlfriend, and male partner in the pregnancy and the decision about its resolution. Scales were administered, the names of which were not reported, which tapped amount of conflict in making the decision, perception of own competence, attitudes toward traditional female role, and attitudes toward modern or feminist female role. Most of the girls (over 80 percent) chose not to tell their parents about the possibility that they were pregnant until this possibility was a certainty. Even when they were sure, 43 percent still chose not to involve their parents in the resolution of the pregnancy. It was found that, among those girls that did seek help from parents, the extent of the mothers' influence on the girl's decision was positively related to the amount of the conflict which the girl experienced over her decision. The mother's perceived influence was negatively related to the adolescents' perceived self-competence among white subjects.

Moseley et al., (1981) administered the Multiple Affect Adjective Check List (MAACL) to 62 abortion patients including women up to 35 years of age. In addition to the MAACL, Rotter's Locus of Control Scale was given. Subjects completed these and other questionnaires immediately before and after abortion procedures. A number of questions were asked in addition to the MAACL and Locus of Control Scale which assessed the degree of involvement with the partner, the amount of support or opposition from partner, parents, and

peers, and feelings toward the partner. With regard to the decision process, it was found that opposition from peers was associated with greater difficulty in decision-making and having a casual rather than significant partner was associated with an easier decision. Unlike the findings of Rosen for adolescents, Moseley et al.'s results showed no significant relationship between parents' support or opposition and difficulty of decision-making. However, it was found by Moseley et al. that opposition from parents over the decision was related to greater postabortion hostility as measured by the MAACL.

Adler (1975) interviewed abortion patients two to three months after the abortion procedure. All subjects were 17 years of age or older. They were asked prior to the abortion to rate how difficult the decision was for them. At followup the women were asked to rate how strongly they had experienced several emotions since the abortion. These were embarrassment, regret, guilt, relief, anxiety, shame, fear of disapproval, anger, happiness, depression, doubt and disappointment in self. Factor analysis revealed three factors: socially based negative emotions (shame, guilt, fear of disapproval), internally based negative emotions (regret, anxiety, depression, doubt, anger), and positive emotions (happiness, relief). Two family-related factors, among others, served as independent variables. These were religion (which religion) and religiosity (frequency of church attendance). Of these variables, only religiosity was found to be associated with reaction to

abortion. Those women who attended church once a month or more experienced the socially based negative emotions more strongly than did less frequent church attenders. Frequency of church attendance is related to family environment in that certain families have been found to emphasize ethical and religious issues and values more than others (Moos & Moos, 1976). The more difficulty a woman had in Adler's study deciding about the abortion, the more intensely she experienced the internally based negative emotions.

Carlson, Kaiser, Yeaworth, and Carlson (1984) assessed the levels of "social support" available to 43 adolescents, 14 through 18 years of age, awaiting results of pregnancy tests at family-planning clinics. The sample contained 31 whites and 11 blacks (1 "other"). They were asked what they would do if the test results were positive. Thirty said they would have the baby, nine reported plans to terminate the pregnancy, and four were undecided. There were no significant differences among groups with regard to social support. This variable was measured using a structured interview. One score was obtained based upon subjects' descriptions of their relationships with family and friends and their interactions with these people concerning the pregnancy.

Ortiz (1982) also using a structured interview format, found several differences between Puerto Rican teenagers intending to carry the pregnancy to term and those planning to seek abortion. The "carry" group was more influenced by family (especially mother) and friends than the "abort" group.

Strong support was associated with a higher degree of satisfaction. Girls intending to terminate the pregnancy reported a greater degree of religiosity and were more likely to continue their education. This group also reported higher incomes.

Thus, the evidence is not clear regarding the influence of family relations on the decision-making of pregnant adolescents. In those studies whose results were suggestive of significant family influence (Adler, 1975; Ortiz, 1982; Rosen, 1980; Swigar et al., 1976), difficulty in making the decision, i.e., ambivalence, seemed to be the factor which consistently reflected this influence. It would be helpful to clarify the relationship between family environment and ambivalence as well as the importance of ambivalence in the overall emotional reaction of the pregnant adolescent to her situation.

Family Influence on Adolescent Childrearing

The following studies highlight the relationship between family characteristics and outcomes associated with adolescent childbearing. Colletta (1981) conducted structured interviews in the homes of 50 adolescent mothers. All of the young women were between the ages of 15 and 19. Fifty-six percent were white and 44 percent were black. Twenty-eight percent were married, 27 percent were single, separated, or divorced. Forty-eight percent were on welfare, 28 percent were financially supported by husbands, 12 percent were supported by their parents, and 10 percent were self-supported. A structured

interview was conducted consisting of two instruments. The Stress, Support, and Family Functioning Interview measured amounts and sources of support in the categories of task performance, material aid, emotional support, information/guidance, and community services support. The Parental Acceptance-Rejection Questionnaire measured maternal behaviors in the areas of warmth/affection, aggression/hostility, neglect/indifference, and rejection. The most consistent predictor of maternal behavior was total amount of support. With high levels of support, adolescent mothers were more affectionate with their children. With low levels of support, mothers tended to be hostile, indifferent, and rejecting toward their children. Emotional support was the type of support most highly related to maternal behavior. Adolescent mothers were less likely to be aggressive and rejecting toward their child if they received higher levels of emotional support. The most important source of emotional support was the adolescent's family. When the young woman felt that she had a close family which she could count on for help, when she felt that she could talk to her parents, when they treated her like an adult, and when there was no conflict over the way she was raising the child, she was less likely to be aggressive, neglecting, and rejecting toward her child. Support from partner or spouse in the form of doing things together, talking about important issues, help with problems, and interest in the child was also predictive of more positive interactions between mother and child.

Adolescent motherhood has been found to be associated with greater incidence of child abuse (Kinard & Klerman, 1980). Adolescent mothers have also been found to share several characteristics with child abusers of all ages such as low socioeconomic status, history of growing up in broken homes, homes in which there was alcohol abuse, and homes in which there was physical abuse (Kinard & Klerman, 1980). The characteristics of poverty and conflictual family environments may contribute to an increased chance of child abuse (Bolton, Laner, & Kane, 1980) and increased chance of adolescent pregnancy. The presence of problematic family relationships has been found to be characteristic of pregnant adolescents as the following studies have shown.

Family Environment

Held (1981) studied the self-esteem and social networks of 62 adolescents in their third trimester of pregnancy. Fifty-six percent were black, 27 percent were Caucasian, and 16 percent were Mexican-American. Subjects completed the Coopersmith Self-Esteem Inventory and also rated their perceptions of others' reactions to their pregnancy. These others: neighbors, favorite teacher, minister, mother, employer, father of the baby, closest friend, father, nurses, self, friends, sisters, and brothers. Sixty-four percent of Caucasians, 43 percent of blacks, and 20 percent of Mexican-Americans perceived disapproval within their social networks. The girls were asked to rank these people in order of importance. The person rated as most disapproving was the subject's

mother. The mother also was ranked in the top four with regard to importance more often than was the subject herself. Thus, the pregnant adolescent viewed her mother as important and also disapproving.

Poor mother-daughter relationships have also been found by Cobliner (1981). Based on interviews with 50 nonpregnant adolescents who were seeking birth control counseling and 143 who were unintentionally pregnant, it was found that the pregnant girls had more conflictual relationships with their mothers as well as their male partners. With regard to their mothers, the pregnant subjects described three main profiles. The first was the retaining or binding mother who imposed severe restrictions on the adolescent and sheltered her excessively. This type of mother was reported to warn her daughter incessantly about the risks of self-direction and experimentation. The pregnancy in this case was a type of revolt against the lack of freedom which the girl experienced. The second profile was the controlling mother who treated the daughter as an extension of herself. This type of mother was described as experiencing her daughter's dating relationships vicariously, wanting to be informed at all times of her activities. The third type of mother was described as abandoning. This mother had "withdrawn prematurely from her adolescent daughter who still needed affection and guidance" (p. 44). The daughter was treated politely, without antagonism, but loneliness drove her into sexual experimentation to seek closeness with someone (Cobliner, 1981). These profiles

were reported anecdotally without statistical data but the descriptions highlight the possibility of more than one type of relationship contributing to irresponsible sexual behavior on the part of the daughter, resulting in unplanned pregnancy.

Hatcher (1973) reported the results of what she termed an intensive, clinical study of adolescent abortion patients. Four rather intensive interviews were conducted. The first was done at the time the young women presented for abortion at the clinic. The second and third interviews were briefer and were held during the patient's three-day stay in the hospital for abortion procedures. The fourth interview was done six weeks after the abortion. The initial interview was composed of several areas of inquiry: the patient's pregnancy, how, why, and with whom it occurred; her current physical and emotional status; her previous experiences with pregnancy, real or fantasized; the patient as a person; her family background; her social and sexual history; and her perception of the effect of pregnancy and abortion on her life. In addition to these areas, a scale was administered classifying the girl as early, middle, or late adolescent. This scale was based on object relations theory and covered five areas: the person most related to the girl's conflicts, the quality and style of object relationships, her views of herself, her use of defense mechanisms, and her goals and interests. The subjects were also asked to draw an adult male, an adult female, and a baby. Six Thematic Apperception Test cards were administered

and two Early Memories, all related to pregnancy and motherhood. At the second and third interviews, the Draw-A-Person tasks were repeated and at final followup, all psychological tests were repeated. The dependent variables measured by the interviews and assessment procedures included: knowledge of conception and contraception, motivations for pregnancy, experience of pregnancy, experience and anticipation of motherhood, attitudes toward abortion, perception of the fetus, fantasies of change, and sense of effect of pregnancy on the future. The hypothesis was that girls at different stages of adolescent development (early, middle, late) and therefore object relations development would evidence varying motivations for and experiences of pregnancy and abortion on each of the eight variables. The initial interview was conducted with 13 subjects but followups were only possible with six. Findings are presented here to emphasize the importance of interpersonal relationships, especially family relationships in adolescent pregnancy. Hatcher's results concerning motivation for pregnancy highlight this point.

The early adolescents were found to evidence denial of responsibility for conception. They were motivated by a desire to break away from their mothers. These girls expressed unhappiness about being pregnant if they acknowledged their feelings at all and did not look forward to motherhood with positive anticipation. There was little realism in their drawings of the baby. There were also

unable to generate plans for the future in the event they were denied the abortion.

The middle adolescents showed a rivalry theme in their motivations for pregnancy. They were competing with the "other woman" by becoming pregnant. By conceiving, these girls were proving equality with and independence from their mothers. Hatcher described this rivalry as stemming from Oedipal conflicts. As opposed to the early adolescents, the middle adolescents did not evidence denial of their experience of the pregnancy and they even tended to exaggerate its physical and emotional consequences. Hatcher characterized the reactions of these girls as somewhat more realistic than the early adolescent group although there was still an externalization of blame for the pregnancy, usually onto a father figure.

The late adolescents were more aware of their responsibility in becoming pregnant. Their motivation was found to be a desire to bring increased affection and commitment from their partners. They evidenced a readiness for motherhood not found in the early and middle adolescents and the prospect of abortion was viewed as unpleasant. Their perspective on the situation was the most realistic among the three groups. This study found that adolescents who were less mature emotionally were motivated to become pregnant by disturbed relationships with parents. The early adolescent's motivation was tied to the mother-daughter dyad and the middle adolescents' motivation stemmed from the mother-father-daughter triad.

Another study utilizing a small sample of pregnant adolescents (N = 12, ages 15-17) assessed the interpersonal relationships of the subjects. This assessment was performed over the course of "a limited number of weekly sessions" (Hertz, 1977, p. 14) by a multidisciplinary team consisting of a psychiatrist or psychologist and a social worker. The purpose of these meetings was to make a decision about the necessity of a therapeutic abortion. The team tried to arrive at a psychiatric diagnosis, assess interpersonal relationships, identify psychological and existential circumstances leading to pregnancy, assess reactions to pregnancy, and find out about the adolescent's experience with sex education prior to the pregnancy. They found no gross psychiatric pathology. The reactions of the girls to the pregnancy were marked by ambivalence about growing up and being independent. They were searching for acceptance and understanding through sexual relationships. They had all been presented with information about sexual maturation and contraception, but attempts to discuss these issues at home were discouraged. In the realm of interpersonal relationships, it was found that the family relationships were disturbed. Nine of the girls came from broken homes. The three pairs of parents who were together were reported by the girls to fight constantly. The girls perceived their mothers as both a source of support and a barrier to independence. Their mothers usually disapproved of meaningful relationships outside the

home. Fathers were seen as negative, threatening figures. If they were not a source of abuse, they were reported as disinterested in the girl and her future.

Olson and Woroby (1984) compared pregnant and non-pregnant junior and senior high girls on several measures of the quality of parent-child relations. Significant differences found between groups suggested that pregnant adolescents received less love and attention from their mothers than did their nonpregnant peers. These measures were based on the perceptions of the adolescents. The pregnant sample also perceived less interdependence in their relationships with their mothers. The nonpregnant adolescents tended to be making better grades in school which supports previous research by Furstenberg (1976) who found that emphasis on education was related to a pattern of lower sexual activity among teenagers.

Two studies (Honeyman, 1981; Prather, 1981) utilizing the Family Environment Scale (FES; Moos & Moos, 1981) found no significant differences in family environment between pregnant and nonpregnant adolescents. One of these additionally found no differences on measures of parent-child relations and adolescents' self-concepts (Prather, 1981). Prather did find that never-pregnant adolescents perceived their families as having clear limits on behavior and the capacity to negotiate conflicts to a greater extent than did pregnant adolescents. Honeyman (1981) found more congruent perceptions of the overall family environment among families of pregnant

adolescents. With regard to specific subscales of the FES, however, the families of pregnant adolescents showed less congruence than families of nonpregnant adolescents on the dimensions of conflict, organization, and control.

These studies aimed at identifying important characteristics of adolescents who were unintentionally pregnant found problematic family relationships to be present. Held (1981) found that pregnant adolescents viewed their mothers as important (even more important than self) and disapproving. A larger percentage of whites than nonwhites perceived disapproval within their social networks. Coblener (1981) also found problematic relationships with the mother to be prominent among pregnant adolescents and described three profiles of these relationships. Hatcher (1973) linked the motivations of early and middle adolescents to become pregnant with the desire to break away from mother (early adolescents) and the desire to compete with her (middle adolescents). Olson and Worobey (1984) found that pregnant adolescents perceived less love, attention, and interdependence in their relationships with their mothers than did their nonpregnant peers. However, studies using the Family Environment Scale have found no differences in family environment between groups of pregnant and nonpregnant adolescents (Honeyman, 1981; Prather, 1981).

Summary

Past research has focused primarily on the consequences of childrearing and abortion in the study of unplanned

adolescent pregnancy. Findings indicate that there are long-term, negative consequences involved in adolescent motherhood. Abortion has been found to be associated with negative emotional reactions over a relatively limited period of time. No serious psychological consequences have been found and feelings of relief are often one aspect of the emotional reaction. The decision-making of young women in this situation has been studied in terms of the decision whether to terminate the pregnancy or carry it to term. Findings concerning the influence of the family in this process have been inconsistent. Racial differences have been found in that whites are more likely to perceive disapproval in their social networks than are nonwhites. Also, among whites, the involvement of the adolescent's mother in decision-making has been shown to be related to decreased feelings of competence. Though disturbed family relationships are well-documented, often they have not been studied in a systematic way. Research has utilized structured interviews or rating scales which were developed for use in particular studies and therefore had no established reliability and validity. Findings have been inconsistent and have often focused on the mother daughter dyad. Studies have appeared which assessed the family system as a whole. This trend is continued in the present study. Information about the overall functioning of the pregnant adolescent's family will suggest more specific areas of focus for future

research. This emphasis is consistent with models of family assessment which have emerged from applied settings (Lewis, Beavers, Gossett, & Phillips, 1976; Olsen, Sprenkle, & Russell, 1979).

Purpose

The purpose of this study was to assess the relationships between family characteristics as perceived by pregnant adolescents intending to become mothers and the decisions they made about adoption, keeping the child, and marriage. The level of certainty these girls reported concerning their decisions and their emotional states were also studied. On the basis of previous research, the following hypotheses were tested.

1) Cohesion as measured by the Family Environment Scale (Moos & Moos, 1981) would be positively related to self-reported Certainty regarding the decision about post-delivery plans.

2) Conflict as measured by the Family Environment Scale would be negatively related to Certainty regarding the decision.

3) Cohesion, Expressiveness, Independence, and Intellectual-Cultural Orientation as measured by the Family Environment Scale would be negatively related to Negative Affect as measured by the Multiple Affect Adjective Check List.

4) Conflict and Control as measured by the Family Environment Scale would be negatively related to age.

5) Independence as measured by the Family Environment Scale would be positively related to age.

6) Pregnant adolescents would score higher than the normative sample of the Family Environment Scale (Moos, 1981) on Conflict.

7) Pregnant adolescents would score lower than the normative group on the Family Environment Scale's measures of Independence, Achievement-Orientedness, Intellectual-Cultural Orientation, Active-Recreational Orientation, and Moral-Religious Emphasis.

In addition, an effort was made to determine if the family variables measured by the Family Environment Scale, in combination with other measures, could be used to predict the types of decisions which pregnant adolescents made.

CHAPTER II

Method

Subjects

Subjects were 175 women, ages 14 through 22, experiencing unplanned pregnancies. These pregnancies were conceived out of wedlock. Means and standard deviations for the sample on the demographic variables of Age, Education, and Trimester of pregnancy are shown in Table 1 (Appendix A). The composition of the sample with regard to Race, Religious Affiliation, Income, Trimester, Family Constellation, and Setting of Assessment is displayed in Tables 2 through 7 (Appendix A). Seventy percent of the sample was obtained from southern California. The remainder was obtained from north central Texas. It can be seen that almost half of the sample was composed of black women. A great majority of subjects were either Protestant or Catholic. Over half of those reporting the yearly income of their households lived in homes bringing in less than \$10,000 per year.

Instruments

The Information Sheet (Appendix B) contained questions about the subject's age, race, religion, frequency of church attendance, level of education, and the income level for the household in which she lived. The subject was asked how many

previous pregnancies she had had, if there were any medical complications with the present pregnancy, and how many visits she had made to medical facilities. She was asked to indicate what decision she had made about postdelivery plans and to rate how certain she was that this was the best decision in her situation. This rating was done on a four-point scale. The subject was asked to indicate which family members knew about her pregnancy and whether her parents' knowing would change her decision (for those subjects whose parents were not aware of the pregnancy). The subject was asked how far along her pregnancy was, and whether she lived with both parents, a single parent, a stepparent, or her husband.

The Family Environment Scale (FES; Appendix C) is a self-report questionnaire which consists of 90 true-false items pertaining to characteristics of the subject's family (see Appendix C). The FES yields scores on 10 subscales, each of which describe a certain characteristic of families. There are three types of subscale, those that measure Relationship Dimensions, Personal Growth Dimensions, and System-Maintenance Dimensions. The first Relationship Dimension is that of Cohesion. This subscale measures the extent to which family members are concerned with and committed to the family and helpful and supportive of each other. The second Relationship Dimension is that of Expressiveness. This assesses the extent to which family members are allowed and encouraged to act openly and to express their feelings directly. The Conflict

subscale, the third Relationship Dimension, taps the extent to which the open expression of anger and aggression and generally conflictual interactions are characteristic of the family. The Personal Growth subscales are: Independence, Achievement Orientation, Intellectual-Cultural Orientation, Active-Recreational Orientation, and Moral-Religious Emphasis. The Independence subscale measures the degree to which family members are encouraged to be assertive, self-sufficient, and to think things out for themselves. The Achievement Orientation subscale measures the extent to which certain activities, such as school and work, are cast into a competitive framework. The Intellectual-Cultural Orientation subscale gives an index of the extent to which the family is concerned about political, social, intellectual, and cultural activities. The Active-Recreational Orientation subscale measures the degree to which the family participates in various recreational and sporting activities. The Moral-Religious Emphasis subscale taps the extent to which the family actively discusses and emphasizes ethical and religious issues and values. The System-Maintenance subscales are Organization and Control. The Organization subscale measures the importance of order and structure in family activities, financial planning, rules, and responsibilities. The Control subscale measures the extent to which the family is organized in a hierarchical manner, the rigidity of rules and procedures, and the extent to which family members order each other around (Moos & Moos, 1981).

The FES has been used with individual subjects to assess their perceptions of the family environment (Cronkite & Moos, 1980; Dancy & Handal, 1980; Dancy & Handal, 1981; Fowler, 1981; Martinez, Hays, & Solway, 1979; Nowicki & Schneewind, 1982; Ollendick, La Berteaux & Horne, 1978; Patterson, Charles, Woodward, Roberts & Penk, 1981; Penk, Robinowitz, Kidd, & Nisle, 1979; Prasinis & Tittler, 1981; Roberts et al., 1982; Smits & Oliver, 1982), and also with several members from a single family to obtain a family score for each scale (Forman & Forman, 1981; Moos & Moos, 1976), an index of differences among the perceptions of family members (Bell & Bell, 1979), and an index of agreement among family members (Russell, 1980). Internal consistency coefficients reported range from .61 to .78 (Cronbach alpha) for the subscales. Eight week test-retest reliability coefficients ranged from .68 to .86. With a four-month interval, reliabilities ranged from .54 to .91 and with a one-year interval, coefficients ranged from .52 to .89. Average subscale intercorrelations were reported to be around .20, indicating that the subscales measure dimensions which are largely independent (Moos & Moos, 1981). With respect to validity, differences have been shown between families described as "distressed" and those which were "non-distressed." The distressed sample consisted of families from a psychiatric clinic, a probation and parole department, families of alcohol abusers, general psychiatric patients, and adolescent delinquents. The distressed families scored

lower on Cohesion, Expressiveness, Independence, Intellectual-Cultural Orientation, and Active-Recreational Orientation. Distressed families scored higher on Conflict and Control (Moos & Moos, 1981).

Ollendick et al. (1978) found that scores on the Cohesion subscale of the FES correlated significantly ($r = .33$) with scores on the Nowicki-Strickland Locus of Control for Adults among a sample of mothers of preschool children. Mothers showing a more internal locus of control reported greater emphasis on Cohesion in their families. It was also found that more democratic-equalitarian childrearing attitudes as measured by the Parental Attitude Research Instrument were negatively correlated with scores on the FES Conflict subscale ($r = -.61$). Mothers who obtained higher Moral-Religious Emphasis scores on the FES tended to rate their children as having fewer behavioral adjustment problems on the Devereaux Child Behavior Rating Scale.

Russell (1980) compared scores on the FES Cohesion subscale with scores on two other measures of family cohesion. These were the Family Sculpture Test and an adaptation of the Bowerman and Bahr Identification Scale. While the FES did not correlate significantly with the other two measures of cohesion, the other two measures did show a significant correlation with each other. This suggests that the FES Cohesion subscale does not measure cohesion as measured by the Family Sculpture Test or the Bowerman and Bahr.

Cluster analysis of the scores obtained from the subsample of the original norm group for the FES revealed six family typologies: Expression-Oriented, Structure-Oriented, Independence-Oriented, Achievement-Oriented, Moral-Religious Oriented, and Conflict-Oriented (Moos & Moos, 1976). Fowler (1981) factor analyzed the scores of the normative sample assessed by Moos (1974) and found that the best solution was provided by a two-factor structure. These factors were Relationship-Personal Growth and System-Maintenance.

Research conducted using the FES has shown that each of the subscales has provided scores showing group differences and/or significant correlations with various other measures. Assessing a group of 40 college students, Smits and Oliver (1982) found that subjects who were classified as moderately depressed (Beck Depression Inventory) rated their families as less Cohesive, Expressive-Achievement-Intellectual-Culturally-Oriented, and as characterized by a greater Control emphasis than was true for nondepressed subjects. Nowicki and Schneewind (1982) assessed groups of American and German adolescents and found significant correlations between scores on several of the FES subscales and scores on the Nowicki-Strickland Internal-External control scale. Eight groups were analyzed: German and American, 12 and 18 year-old, males and females. Each of the 10 FES subscales showed significant correlations with locus of control among several of the groups. Forman and Forman (1981) administered the FES to 80 high school

students and their parents. They also gave the High School Personality Questionnaire (HSPQ) to the students. The HSPQ measured 14 bipolar dimensions of personality: reserved-warmhearted, less intelligent-more intelligent, affected by feelings-emotionally stable, undemonstrative-excitabile, obedient-assertive, sober-enthusiastic, disregards rules-conscientious, shy-adventurous, toughminded-tender minded, zestful-circumspect, self-assured-apprehensive, socially group dependent-self-sufficient, uncontrolled-controlled, and relaxed-tense. Using a multiple regression analysis, Forman and Forman found that one or more HSPQ scales showed significant correlations with each FES subscale. Martinez et al. (1979) found no differences on FES scores between groups of delinquent and nondelinquent Mexican-American adolescents. The same was true for groups of Black adolescents from divorced versus intact family backgrounds until Conflict scores were used as an independent variable (Dancy & Handal, 1980). When three groups representing high, middle, and low levels of Conflict were compared, it was found that the high Conflict group reported significantly lower Cohesion than the other groups and less Intellectual-Cultural Orientation and Organization than the low Conflict group. Prasinos and Tittler (1981) found that highly humor-oriented adolescents scored lower on the FES Cohesion subscale than less humor-oriented adolescents. Dancy and Handal (1981) assessed 463 Black urban males and females using the FES. It was found that older

adolescents obtained higher scores on the Independence subscale than younger adolescents.

Several studies have used the FES to assess the perception of substance abusers with respect to their family environments both past and present. Penk et al. (1979) found that heroin addicts rated their past family environments as significantly higher on Achievement-Orientedness and lower on Expressiveness, Intellectual-Cultural Orientation, and Active-Recreational Orientation than the normative sample. Black-White differences among these addicts were also found with Blacks scoring higher on Cohesiveness, Intellectual-Cultural Orientation, Moral-Religious Emphasis, and Organization and lower on Conflict than Whites. Findings were similar for ratings of present family environment with certain exceptions. Whites scored higher on Expressiveness and lower on Achievement-Orientedness. Cronkite and Moos (1980) found that stressful life events such as the death of a family member, separation, and legal problems were related to more negative perceptions of family environment among a group of subjects who had been treated for alcoholism. Patterson et al. (1982) found that Black alcohol abusers rated their past and present family environments more favorably than White alcohol abusers.

Scores on the FES have been significantly related to measures of locus of control (Nowicki & Schneewind, 1972; Ollendick et al., 1978), depression (Smits & Oliver, 1982),

humor (Prasinos & Tittler, 1981), and stressful life events (Cronkite & Moos, 1980). Scores were not related to two other measure of cohesion which were related to each other (Russell, 1980). Black-White differences have been found (Patterson et al., 1981; Penk et al., 1979). Scores obtained from the original normative sample have been analyzed with the results of identifying six family typologies (Moos & Moos, 1976) and two factors (Fowler, 1981).

The Multiple Affect Adjective Check List (MAACL, see Appendix D) is a list of 132 adjectives. Subjects are instructed to check those adjectives which describe how they feel either "today" or "in general" (Zuckerman & Lubin, 1965a). In the present study, since reactions to a specific situation were of interest, the "today" instructions were used. The MAACL yields scores on three subscales: Anxiety, Hostility, and Depression. Normative data for psychiatric and non-psychiatric samples has been published (Zuckerman & Lubin, 1965b). Internal consistency coefficients (split-half and item intercorrelations) for the "today" version of the MAACL have been reported by Zuckerman and Lubin (1965a) to range from .17 to .85 for the anxiety subscale, from .65 to .92 for the Depression sbuscale, and from .24 to .90 for the Hostility subscale. Test-retest reliabilities ranged from .15 to .84 for an interval of one week. Pankratz, Glaudin, and Goodmonson (1972) administered the MAACL twice to a group of 101 college students. The test-retest interval used was one hour. They

obtained stability coefficients of .88, .90, and .90 for the Anxiety, Depression, and Hostility subscale respectively. When they tested another group of students using a five-day interval, coefficients dropped to .22, .24, and .17 for the subscales. Given that, under the "today" instructions, the subscales attempt to measure emotions experienced during a fairly circumscribed period of time, and that emotions are not a stable trait but a changeable state of experience, low coefficients of stability over time are likely to be indicative of variability of the construct being measured rather than unreliability of the instrument (Masterson, 1975).

With regard to validity, Zuckerman and Lubin (1965a) found that scores on the Anxiety, Hostility and Depression subscales showed a significant increase when college students were told about an unexpected classroom exam. Other stimuli such as medication and films with emotion-arousing content have also been shown to significantly raise scores on the Anxiety subscale (Zuckerman & Lubin, 1965a). Groups of psychiatric patients rated by mental health professionals as high, medium, and low with regard to anxiety and hostility have been shown to differ significantly on the MAACL Anxiety and Hostility scores (Zuckerman & Lubin, 1965a). Correlations between the Anxiety subscale scores of the MAACL (today form) and the Taylor Manifest Anxiety Scale have been found to range from .29 to .69. All three subscales have shown significant positive correlations with the Depression and

Psychasthenia scales of the Minnesota Multiphasic Personality Inventory (MMPI). These coefficients fell in the .35 to .50 range. The Depression subscale has shown significant positive relationships to the Hypochondriasis and Schizophrenia scales of the MMPI. The MAACL Hostility subscale was positively related to the MMPI Schizophrenia scale (Zuckerman & Lubin, 1965a).

There is some question as to whether the MAACL is a valid measure of three distinct affects. Intercorrelations among subscales reported by Zuckerman and Lubin (1965a) ranged from .50 to .86. Pankratz et al. found interscale correlations to range from .57 to .88. Steer (1974) compared the results of ratings of 75 female psychiatric patients on the Brief Psychiatric Rating Scale to the scores of these women on the MAACL. A factor analysis of results of the Brief Psychiatric Rating Scale yielded seven factors. All three MAACL subscales were found to load on a single factor on the Rating Scale. This factor was described as a dimension of negative affect. McLachlan (1976) administered a short adjective checklist consisting of 54 adjectives, 30 from the MAACL, to a group of 230 chronic alcoholics. This scale was designed to measure anxiety and depression. Factor analysis of the resulting scores yielded five main factors accounting for the 49 percent of the variance. None of the factors could be described as dimensions of anxiety or depression. The two strongest factors were positive and negative affect.

Due to a lack of demonstrated discriminant validity (Masterson, 1975), the present study follows the suggestion of Pankratz et al. (1972) and includes a sum score in the analysis of results. This is calculated by summing a subject's scores on the subscales of the MAACL resulting in a single score for Negative Affect.

Procedure

Subjects were solicited from a home for unwed mothers, medical clinics offering pregnancy testing and prenatal care to adolescents, and several high school programs for pregnant students. The regions included were Southern California and North Central Texas. Data were collected during the period from September 1983 to December 1984. After obtaining permission from appropriate administrators, teachers, and counselors, subjects were asked to participate in the study. Some of the subjects completed the questionnaires in a group setting and some did so individually. This varied with the setting and depended upon the procedures of the agency or school. The questionnaires were administered by counselors, teachers, or the researcher. Subjects were assured of the confidentiality policy regarding their responses to the questionnaires. The subjects were instructed to first read and sign the consent form (Appendix E) and then complete the three questionnaires comprising the assessment: The Information Sheet, the Family Environment Scale, and the Multiple Affect Adjective Check List. Questions regarding the

instructions were answered, but care was taken not to influence the responses of subjects to the items. Upon completion of the questionnaires, questions concerning the nature of the study were answered by explaining that the researcher was studying pregnant adolescents, their feelings, and their families.

CHAPTER III

RESULTS

The results of this study will be presented in four subsections. The first will deal with bivariate correlational findings. The second will report the results of multiple regression analyses. The third subsection will present results of comparisons made between the present sample and the normative sample provided by Moos and Moos (1981) for the Family Environment Scale (FES). The final subsection will deal with findings of those analyses performed independently of the formal hypotheses of the study.

Table 8 (Appendix F) presents descriptive statistics for the main variables. In addition, the proportion and frequency of subjects endorsing each choice regarding post-delivery plans are shown in Table 9 (Appendix G).

Correlational Findings

The Pearson product-moment correlation coefficient matrix for the variables used in this study is presented in Table 10. Utilizing the .01 level as the criterion for significance, it can be seen that Hypothesis 1 and Hypothesis 2 were unsupported by the data. Neither family Cohesion nor family Conflict showed a significant correlation with Certainty. Those variables which were significantly correlated

Table 10

Pearson Product-Moment Correlation Matrix

	Age	Race	Educ	Cert	Trim	FC	NA	Choice	Inc
C	-.10	.09	-.01	.09	.07	.02	-.25***	.001	-.05
Exp	.21**	-.27***	.18*	.08	.15	.06	-.18*	.18*	.34***
Con	.03	-.03	-.06	-.06	-.05	-.02	.16*	-.11	-.002
Ind	.31***	-.23**	.33***	.13	.24**	.13	-.22**	.26***	.21*
A0	.04	.05	-.05	-.01	-.04	.06	-.05	.01	.01
ICO	.05	.15	.11	-.01	-.06	-.07	-.15*	-.03	.10
ARO	.11	.02	.14	.09	.005	.11	-.12	.08	.14
MRE	-.01	.27***	.04	.02	-.09	-.05	-.04	-.17*	-.12
Org	-.06	.11	.01	.12	-.03	.09	-.12	-.02	-.03
Ctl	-.07	.12	-.05	-.09	-.08	-.09	-.06	-.10	-.21*
Age		-.23**	.79***	.13	-.01	.26***	.04	.11	.20*
Race			-.13	-.13	-.23**	-.06	-.02	-.42***	-.48***
Educ				.10	.09	.29***	-.06	.02	.20*
Cert					-.05	.17*	-.20**	.08	.06

Table 10--Continued

	Age	Race	Educ	Cert	Trim	FC	NA	Choice	Inc
Trim						-.04	.10	.28***	.24**
FC							-.25***	.10	.06
NA								.10	.02
Choice									.37***

Note. C = Cohesion, Ex = Expressiveness, Con = Conflict, Ind = Independence,

AO = Achievement Orientation, ICO = Intellectual-Cultural Orientation, ARO = Active-

Recreational Orientation, MRE = Moral-Religious Emphasis, Org = Organization, Ctl =

Control, Educ = Education, Cert = Certainty, Trim = Trimester, FC = Family

Constellation, NA = Negative Affect, Inc = Income. All correlations involving

Income are based on $N = 128$. The variable of Race is analyzed as white vs. nonwhite.

* $p < .05$

** $p < .01$.

*** $p < .001$.

with Certainty were Family Constellation ($\underline{r} = .17, \underline{p} < .05$) and Negative Affect ($\underline{r} = -.20, \underline{p} < .01$).

Hypothesis 3 received partial support in that family Cohesion and Independence showed clearly significant relationships to Negative Affect ($\underline{r} = -.25, \underline{p} < .001$; $\underline{r} = -.22, \underline{p} < .01$ respectively). However, the hypothesized relationships between family Expressiveness and Negative Affect and between family Intellectual-Cultural Orientation and Negative Affect did not reach the .01 level of significance ($\underline{r} = -.18$; $\underline{r} = -.15$ respectively, $\underline{p} < .05$). In addition to the hypothesized correlations, Negative Affect was found to show significant or near significant correlations with the following variables: Certainty ($\underline{r} = -.20, \underline{p} < .01$), Family Constellations ($\underline{r} = -.25, \underline{p} < .001$), and Conflict ($\underline{r} = .16, \underline{p} < .05$).

Hypotheses 4 and 5 concerned the relationships between Age and certain family environment variables. Hypothesis 4 was not supported. Neither FES Conflict nor Control were significantly related to Age. Hypothesis 5 was supported by the significant correlation between family Independence and Age ($\underline{r} = .31, \underline{p} < .001$). Several other variables showed significant or near significant correlations with Age. These were: Expressiveness ($\underline{r} = .21, \underline{p} < .01$), Race ($\underline{r} = -.23, \underline{p} < .01$), Education ($\underline{r} = .79, \underline{p} < .001$), Family Constellation ($\underline{r} = .26, \underline{p} < .001$), and Income ($\underline{r} = .20, \underline{p} < .05$).

These results suggest that those adolescents who were more certain about their decisions tended not to be living

with both natural parents or mother only. They also tended to report less Negative Affect. Adolescents who felt better emotionally tended to perceive greater Cohesion and support for Independence in their families. They reported greater Expressiveness and Intellectual-Cultural Orientation as well. Those subjects who felt better (lower Negative Affect) also tended to be living away from their families of origin and to perceive less Conflict in their families. Older adolescents tended to perceive greater Independence and Expressiveness in their families. They also tended to be white, to be living away from the family of origin, to have higher household incomes, and understandably, to have finished more years of school.

Multiple Regression Analyses

In order to identify those variables which, in combination, served as the best predictors of Certainty and Negative Affect, two multiple regression analyses were performed. For both analyses, predictor variables included Age, Race (white vs. nonwhite), Education, Trimester, Family Constellation, and the ten subscales of the FES. A stepwise selection procedure was employed. The significance level required for entry into and remaining in the regression model was .10. For the criterion of Certainty, the variables of Family Constellation and Race were selected for inclusion. The resulting prediction equation accounted for three percent of the variance on the Certainty dimension:

Certainty = 3.7 + .05 (Family Constellation) - .2 (Race)

The multiple correlation for this equation was .21, ($F_{2,172} = 3.99$, $p < .05$). Beta values for Family Constellation and Race were .08 and -.13, respectively. These relationships suggest that those subjects who were white and did not live with both natural parents or with mother only tended to report greater Certainty regarding their decisions about post-delivery plans.

For the criterion of Negative Affect, five variables were selected. The following regression equation accounted for 17 percent of the variance on the Negative Affect Dimension:

$$\begin{aligned} \text{NA} = & 23.3 + 1.5 (\text{Age}) + 3.6 (\text{T}) - 1.7 (\text{FC}) - 1.2 (\text{C}) \\ & - 2.3 (\text{I}) \end{aligned}$$

where NA = Negative Affect, T = Trimester, FC = Family Constellation, C = Cohesion, and I = Independence. The multiple correlation coefficient for this equation, $R = .41$, was significant ($F_{5,169} = 7.01$, $p < .001$). Beta values for the variables selected are displayed in Table 11. As can be seen in Table 10, all variables chosen showed significant or near-significant Pearson correlations with Negative Affect except Age ($r = .04$). This variable acts as a suppressant variable in the equation. It is significantly and positively correlated with two other predictors, Family Constellation ($r = .26$, $p < .001$), and Independence ($r = .31$, $p < .001$). It can be assumed that Age shares variance with these predictors which is independent of that variance shared by Family Constellation, Independence, and Negative Affect. The regression coefficient

associated with Age is a positive number while those associated with Family Constellation and Independence are negative. Thus, Age serves to neutralize that variance on these predictor dimensions which is irrelevant to their relationships with the criterion.

Table 11

Beta Values for Variables Selected: Stepwise Linear Regression

Criterion	Predictors				
	Age	Trim	FC	C	Ind
Negative Affect	.15	.15	.25	.17	.22

Note. Trim = Trimester, FC = Family Constellation, C = Cohesion, Ind = Independence.

The relationships found using multiple regression analysis supported those found with bivariate correlations. In addition it was found that the variables of Trimester and Age may also be useful in understanding the Negative Affect of pregnant adolescents when considered in combination with Family Constellation, Cohesion, and Independence. Also, the variables of Family Constellation and Race may be valuable in predicting Certainty.

Present Sample and Norm Group Comparisons

To assess the differences between the present sample and the norm group on the FES subscales, 10 t-tests were performed, one for each subscale. Alpha was set at .10 (df = 1298) due to the large number of tests performed. Results are shown in Table 12. Significant differences were found on the subscales of Expressiveness, Independence, Achievement Orientation, Intellectual-Cultural Orientation, Moral-Religious Emphasis.

Table 12

Comparison of Pregnant Adolescents With Normative Sample
on the Family Environment Scale

Subscale	Adolescents		Norm Groups		t-value
	M	SD	M	SD	
Cohesion	6.36	2.19	6.61	1.36	-2.08
Expressiveness	4.54	1.80	5.45	1.55	-6.50*
Conflict	3.47	2.15	3.31	1.85	1.07
Independence	6.16	1.46	6.61	1.19	-4.50*
Achievement Orientation	6.33	1.39	5.47	1.61	6.14*
Intellectual- Cultural Orientation	4.78	2.05	5.63	1.72	-6.07*
Active- Recreational Orientation	5.37	2.02	5.35	1.87	0.13
Moral-Religious Emphasis	5.70	1.80	4.72	1.98	5.76*
Organization	5.72	2.17	5.41	1.83	2.10
Control	5.00	1.99	4.34	1.81	4.71*

Note. Degrees of freedom = 1298.

* $p < .01$.

and Control. There was no difference between groups on Conflict and so Hypothesis 6 was not supported. Hypothesis 7 received partial support in that pregnant adolescents tended to obtain lower scores on Independence and Intellectual-Cultural Orientation. Contrary to this hypothesis, pregnant

adolescents tended to perceive greater Achievement Orientation and Moral-Religious Emphasis in their families than did members of "normal" families. In addition, the present sample perceived less Expressiveness and more emphasis on Control than did the norm group.

Additional Analyses

In order to assess the extent to which the variables studied could be used to discriminate among those subjects making different choices regarding postdelivery plans, discriminant analysis was utilized. Discriminating variables were: Age, Race (white vs. nonwhite), Education, Certainty, Trimester, Family Constellation, Negative Affect, and the 10 FES subscales. Four groups comprised the categorical variable: 1) those girls planning to stay single and raise the child alone, 2) those girls planning to get married and raise the child with the husband, 3) those girls planning to place the child up for adoption, and 4) those girls with "Other" plans. This final group included six girls choosing to raise the child with their boyfriend or another family. Means for each of these groups on the discriminating variables are shown in Table 13 (Appendix H).

The discriminant functions correctly classified 50.1 percent of those girls planning to stay single and raise the child alone, 53.9 percent of those girls planning to get married, 94.1 percent of the adoption group, and all six cases in the "Other" group. The overall rate of correct

classification was 61.7 percent. The groups which differed most consistently on these variables were those girls planning to keep their children and those choosing adoption. Mahalanobis' measure of distances between classes showed the following pairs of groups to be significantly distinct from one another: 1 and 3 ($D^2 = 3.14$, $p < .0001$), 2 and 3 ($D^2 = 3.00$, $p < .0001$). A stepwise procedure was utilized to identify those variables which served as the best discriminators among groups. Order of selection was based upon the squared partial correlation associated with each variable. The significance level required for both entry into and remaining in the model was .05. Five variables were selected: Race, Family Constellation, Age, Trimester, and Active-Recreational Orientation. Table 14 shows the squared partial correlation and significance level associated with each variable.

Table 14

Discriminant Analysis: Stepwise Selection Procedure

Step Variable	Partial R^2	F
1 Race	.46	47.72***
2 Family Constellation	.10	6.32***
3 Age	.08	4.80**
4 Trimester	.06	3.62*
5 Active-Recreational Orientation	.09	5.78**

* $p < .05$; ** $p < .01$; *** $p < .001$.

The canonical discriminant analysis model contained three discriminant functions. Only the first was clearly significant, showing a canonical correlation of .77 (Wilks' $\lambda = .31$, $F_{51,459} = 4.33$, $p < .0001$). This function served to discriminate between those girls planning to place the child up for adoption and those planning to keep the child. The within-groups structure coefficients and the canonical correlations for the functions derived are shown in Table 15. In examining the structure coefficients for the first discriminant function, it can be seen that choosing adoption was associated with being older, white, and further along in the pregnancy. Subjects making this choice tended to perceive higher levels of Expressiveness and Independence in their families. Mean discriminant scores for the groups comprising the categorical variable are shown in Table 16 (Appendix I).

To assess the degree to which certain subgroups of this sample differed with regard to the family environment variables, several one-way analyses of variance (ANOVAs) were performed. Dependent measures were the 10 FES subscales. Independent measures were Race (four categories), Religion (three categories), yearly Income (four categories), and Setting from which subjects were obtained (three categories). For each independent variable, 10 ANOVAs were performed, one for each FES subscale. For the subgroups based upon Race (white, black, Mexican-American, Other), significant F -ratios

Table 15
Within Canonical Structure

Variable	Can 1	Can 2	Can 3
Age	-.24	-.20	.04
Race	.74	-.15	.39
Education	-.12	-.18	.04
Trimester	-.23	.42	.29
Family Constellation	.10	.57	-.24
Negative Affect	-.13	-.04	-.19
Certainty	-.11	.08	.23
Cohesion	.02	.09	-.01
Expressiveness	-.23	.12	-.11
Conflict	.03	-.26	-.23
Independence	-.22	.29	.11
Achievement Orientation	.06	.09	.12
Intellectual-Cultural Orientation	-.02	-.14	.13
Active-Recreational Orientation	-.14	-.02	.50
Moral-Religious Emphasis	.12	-.22	.18
Organization	.12	.16	.19
Control	.11	-.16	.11
Canonical <u>R</u>	.77*	.40	.28

Note. Can = Canonical Discriminant Function.

* $p < .0001$.

($df = 3,171$) resulted for the variables of Expressiveness ($F = 4.83, p < .01$), Independence ($F = 3.35, p < .05$), Intellectual-Cultural Orientation ($F = 5.64, p < .01$), Moral-Religious Emphasis ($F = 7.58, p < .001$), and Control ($F = 2.71, p < .05$). Post-hoc analysis, using the Duncan test found that blacks showed a higher mean on the subscale of Intellectual-Cultural Orientation than those subjects in the "Other" category. Whites showed a higher mean on the Independence subscale than "Others." The latter group included only four subjects (one Mexican-American/Indian, one Mexican, one Indian, and one Central American). The Duncan test was unable to identify differences across Race on the variables of Expressiveness, Moral-Religious Emphasis, and Control.

For the independent variable of Religion, significant differences ($df = 2,167$) were found across groups on the dependent measures of Cohesion ($F = 4.31, p < .05$), Achievement-Orientation ($F = 6.24, p < .01$), Intellectual-Cultural Orientation ($F = 4.19, p < .05$), and Moral-Religious Emphasis ($F = 12.67, p < .001$). Protestants and Catholics showed higher means on the Achievement-Orientation subscale than those subjects reporting "No Religion." Protestants obtained higher scores than Catholics and "No Religion" on Moral-Religious Emphasis. Protestants showed a higher mean than "No Religion" on Cohesion and a higher mean than Catholics on Intellectual-Cultural Orientation.

With regard to estimated yearly Income of the households where the subjects lived, significant F -ratios ($df = 3, 124$) resulted for the variables of Expressiveness ($F = 5.49$, $p < .01$), Independence ($F = 2.77$, $p < .05$), and Control ($F = 2.97$, $p < .05$). Post-hoc analysis showed that the group reporting a yearly Income of more than \$30,000 tended to obtain higher scores on Expressiveness than the group reporting an Income of less than \$10,000 per year. The \$20,000 to \$30,000 group was found to show a higher mean on Independence than the two groups with Incomes less than \$20,000 per year. No differences were identified, using the Duncan test, on the variable of Control.

This sample was obtained from three types of settings. These were: public school programs for pregnant students, a home for unwed mothers, and clinics offering medical services (pregnancy testing, prenatal care) to pregnant adolescents. One-way ANOVAs ($df = 2, 168$) showed significant differences across these Settings on the variables of Expressiveness ($F = 6.7$, $p < .01$), Independence ($F = 7.57$, $p < .001$), Intellectual-Cultural Orientation ($F = 3.2$, $p < .05$), and Moral-Religious Emphasis ($F = 3.4$, $p < .05$). Those subjects obtained from the home for unwed mothers showed higher mean scores on Expressiveness and Independence than those subjects obtained from schools or clinics. Subjects obtained from clinics showed higher scores on Intellectual-Cultural Orientation than subjects from the

school classes. The subjects from clinics obtained higher scores on Moral-Religious Emphasis than subjects from the home for unwed mothers.

T-tests were used to assess the differences on the dependent variables between those subjects from California and those from Texas. It was found that subjects from California perceived less Expressiveness ($t_{172} = -2.22$, $p < .05$) and Independence ($t_{172} = -2.65$, $p < .01$) in their families than did subjects from Texas.

CHAPTER IV

Discussion

This study investigated the relationships between family environment and demographic measures on one hand and the decision-making of unintentionally pregnant adolescents on the other. Findings will be elaborated and their implications for the provision of services to this population will be discussed. In addition, suggestions for future research will be outlined. A note of caution to the reader seems in order. The results obtained were statistically significant, but the effects were small. At this point, the results are of considerable theoretical value, but do not represent effects sufficiently large for making predictions.

Ambivalence and Negative Emotions

Reported ambivalence among subjects was relatively rare. It was measured on a four point scale and termed, "certainty." The mean was 3.5 (SD = .7). This suggests that either these adolescents were not very ambivalent about their post-delivery plans or they were unwilling to report (or unaware of) their true level of uncertainty. No provision was made to detect socially desirable response sets or other factors, such as unconscious denial, which may have distorted the measurement of ambivalence. The constriction of range obtained decreased the chances of significant correlational findings with regard to this variable.

The relationship between ambivalence and negative affect is not unexpected and is consistent with past research regarding decisions about abortion (Adler, 1975). Uncertainty over any important decision is likely to be distressing. This association and the rarity of reported ambivalence found here may be important to health and mental health professionals working with pregnant adolescents. Those who report significant ambivalence over their decision about the situation may represent a truly distressed group. Present findings suggest that these girls tend not to report their ambivalence. Therefore, special attention should be paid to those who do as the situation may be quite overwhelming to them.

It was found that ambivalence over post-delivery plans was related to being white and living with both natural parents or with mother only. This finding is similar to that of Rosen (1980) who reported that involvement of the mother in the decision whether or not to have an abortion was positively related to the amount of ambivalence experienced by the girl. To clarify the nature of this relationship between family constellation and certainty, it is instructive to consider the variable of independence. This is the only family environment variable which was marginally related ($p < .10$) to family constellation and certainty. It may be that living with both natural parents or mother only is associated with the lack of a sense of autonomy and that this increases the ambivalence of the pregnant adolescent. Rosen also reported that adolescents' perceived self-competence

was negatively related to the amount of influence the mother had in the decision-making (among whites). Since disturbed mother-daughter relationships are well-documented with this population (Coblener, 1981; Hatcher, 1973; Held, 1981; Hertz, 1971; Olson & Worobey, 1984) this may be the operational factor in the relationship between family constellation and certainty. The increase in ambivalence may stem from a sense of inadequacy and dependence vis-a-vis the adolescent's mother.

An alternative explanation is based upon the findings of Ortiz (1982). In that study, satisfaction with the decision regarding abortion versus carrying the pregnancy to term was related to support from family and friends. It may be that this factor, rather than or in combination with independence, contributes to that aspect of family constellation which is related to ambivalence. If this is the case, this support appears to independent of the dimensions, such as cohesion, assessed by the FES.

It was expected that family influence on ambivalence would be evidenced by relationships between cohesion and certainty and between conflict and certainty. These were not found. At least two explanations must be considered. It may be that unplanned pregnancy provides a crisis which functions to bring a conflictual family back together temporarily. This explanation is consistent with the theoretical position of Watzlawick, Beavin, and Jackson (1967) and any number of family-systems-oriented authors. This position states that

problems in a family (in this case unplanned pregnancy) serve to reestablish and/or maintain the status quo with regard to family functioning. Among this sample, conflict showed the lowest mean and cohesion the highest of the 10 FES subscales. Therefore, the pregnancy may have functioned to decrease conflict and increase cohesion due to a need to "rally around" the adolescent. In such a case, it would be expected that a behavior-focused instrument such as the FES would not reveal problems in the family which are temporarily diminished.

Especially with regard to conflict, it may also be that subjects underreported problems to avoid making an unfavorable impression. However, no provision was made to detect the operation of socially desirable response sets. Inaccuracies in the measurement of family cohesion and conflict may have distorted the relationships of these variables with others.

Several family characteristics were related to increased negative emotions. These were conflictual and nonsupportive relationships among family members, a lack of respect and support for independent functioning, a lack of encouragement of open expression of ideas and feelings, and a relative lack of interest in intellectual and cultural experiences. In addition, those subjects living with both natural parents or mother only tended to be more distressed. These findings suggest that a negative family environment is associated with increased distress. Similar findings have been reported regarding post-abortion distress (Payne et al., 1976). The connection between

individual and family functioning is an intimate one (Beavers, 1977). It is also a reciprocal relationship in that dysfunctional family relations may elicit as well as be elicited by crisis situations. These results do not explain a causal connection. Rather they point out the multilevel nature of unplanned pregnancy. It is important for both the researcher and the practitioner to understand that a thorough approach to this problem addresses family as well as individual factors.

There appears to be some factor involved in living with both natural parents or mother only which is associated with negative emotions. Only one of the family variables related to negative affect showed a near-significant relationship ($p < .10$) to family constellation, namely, independence. Therefore, the factor in question may involve the lack of a sense of independence and autonomy. This was also suggested by the data concerning certainty. As will be discussed later in this section, future research should aim at more sensitive assessment of the family constellation variable.

Multiple regression analysis found age and trimester of pregnancy to be useful, in combination with family-related variables, in predicting negative affect. Greater emotional distress in the latter stages of pregnancy is understandable. The stressful experience of childbirth is imminent. Apprehension of taking on the role of mother may be strong. A non-supportive family may exacerbate this discomfort. Older adolescents in this situation where an increase in responsibility is approaching and little hope for independence is felt

tend to feel worse emotionally. These women may represent a population which would be amenable to psychological counseling. In other words, older adolescents, nearer to giving birth, with nonsupportive families may be motivated by their distress to discuss and possibly improve their circumstances. They may be helped to understand the risks involved. Services such as vocational counseling and parenting skills training should be aimed at helping the adolescent anticipate and avoid the family and financial problems associated with adolescent childrearing.

It must be pointed out that the levels of negative affect obtained in this study were not, on the whole, abnormal. The mean for the present sample was 30.1. This falls between the means for female adult job applicants (24.5) and female psychiatric patients (42.2) provided in the Multiple Affect Adjective Check List manual. Female college students (mean age = 18) showed a mean score of 27.1 (Zuckerman & Lubin, 1965b).

Caution must be exercised in drawing inferences from the data concerning both certainty and negative affect. A relatively small amount of variance on these dimensions is accounted for by the regression equations obtained. Over 95 percent of the variance on the certainty measure and over 80 percent of the variance on the negative affect measure remains unexplained. Future research should aim at more complete understanding of these variables through focus on different

predictor dimensions and/or through assessing family environment via more sensitive techniques.

Choices Made by Subjects

One aim of this study was to explore the family and demographic variables associated with the choices made by the subjects. It was learned that the adoption group was different from those groups planning to keep the child on several dimensions. Most importantly, nearly all the girls choosing adoption were white. Only two Mexican-Americans and no blacks chose adoption. This finding is consistent with other reports of minimal use of adoption services by minority groups (Alan Guttmacher Institute, 1981; Brown, 1982). In addition, one of the strongest correlations found in this study was between income and choice. This suggests that the adoption group enjoyed greater annual household income than the others. Therefore, the major factors found here to determine the choices of unintentionally pregnant adolescents are cultural and economic rather than family-related.

During the course of data collection, contact with subjects and those who work with pregnant adolescents indicated that having a child conceived and/or born out of wedlock is more acceptable among low-income minority groups than among others. Indeed, a large number of protocols were excluded from data analysis because the young women indicated that their pregnancies were planned. This atmosphere is reflected

in the present findings. Low-income minority status is associated with greater likelihood of keeping the child. The adolescent mother is more likely to be cared for and accepted, along with her child, in this subculture. Among higher income whites however, there is a greater chance that the pregnant adolescent and her family will undertake the stressful process of adoption placement. Unplanned adolescent childbearing is less acceptable among this group.

While strong differences between subjects choosing adoption and those keeping the child with regard to family variables did not appear, the tendency was for the adoption group to report more favorable family environments. They tended to perceive their families as more supportive of open expression of feelings, self-sufficiency, and autonomy.

These advantages in family environment may be partially explained by the age and income of this group. These two factors were positively related to family expressiveness and independence. It was found, as expected, that there was a tendency toward greater autonomy with age. Older subjects reported greater support, in their families, for independent thought and action and for open expression of feelings. Higher scores on Expressiveness and Independence among the adoption group were reflective of this process and the tendency of this group to be older. Chronic financial strain is also likely to affect the functioning of the family. Positive family interactions depend upon a sense of well-being

among members of the family. This may be absent in homes where there is worry about meeting the basic needs for food, shelter, and clothing. Satisfying relationships may fall victim to stressful economic conditions. The adoption group may have avoided these stresses due to their higher incomes.

The more positive descriptions of the family offered by those subjects choosing adoption may also be due to the fact that only two subjects in the adoption group were living at home at the time of assessment. The rest were residents of a home for unwed mothers. This situation may have caused them to think more positively of their home environment due to their being somewhat removed from the situation. Feelings of homesickness may also have been a factor. A further implication of the fact that most of the adoption sample was drawn from a single site is that the probability of sampling bias is increased. Therefore, this description of girls choosing adoption must be considered tentative. There is also evidence to suggest that girls choosing adoption were further along in their pregnancies. This is due to the fact that girls typically did not enter the home for unwed mothers until their second trimester.

Present Sample Versus "Normal" Families

Comparison of the FES scores of the present sample with normative data (Moos & Moos, 1981) reveals several statistically significant differences. Pregnant adolescents perceived less open expression of feelings, less independence

among family members, and less interest in intellectual-cultural pursuits than did the norm group. On the other hand, they perceived greater expectations for achievement, higher moral-religious emphasis, and greater reliance on rules. The implication is that pregnant adolescents are expected to meet high expectations within a context of constricted emotional expression, rigid moral and behavioral rules, and inadequate learning and growth experiences. One hypothesis regarding these comparisons was partially supported. The adolescents' families were seen as less supportive of independent functioning and intellectual-cultural pursuits. However, findings of higher achievement orientation and moral-religious emphasis ran counter to expectations. Rather than apathy in these areas, expectations were high, perhaps unreasonably so. The differences between these groups, though statistically significant, are of little clinical value. They did not, on any subscale, exceed one raw score unit. Therefore, further discussion of these differences would be highly speculative. More important may be the lack of clear differences between groups. Although unplanned pregnancy may often be considered indicative of disturbed family relations, present results are not strongly supportive of this. Rather, the findings of this study are consonant with those of Honeyman (1981) and Prather (1981) who each found no significant differences in family environment between pregnant and nonpregnant adolescents. Therefore,

those who work with this population must not assume that family dysfunction will be obvious. Problematic relationships should be explored on an individual case basis.

Summary, Limitations, and Future Research

To summarize, family environment was found to be associated with the level of negative emotion and the post-delivery plans of unintentionally pregnant adolescents. A cohesive family which at the same time encourages independent functioning is related to less emotional distress. Encouragement of intellectual-cultural pursuits and expression of feelings may also be associated with a greater sense of well-being. Adolescents choosing adoption were distinguished from those keeping the baby primarily on the basis of race. Beyond this, the adoption group showed certain advantages in terms of income, family environment, and certainty. Some aspect of living with both natural parents or mother only was related to greater ambivalence and negative emotion. This may have to do with the lack of a sense of independence associated with this family constellation. Families of pregnant adolescents were not clearly different from "normal" families although there was some evidence of high expectations in the absence of appropriate learning and growth experiences.

The major limitation of this study is the absence in the sample of pregnant adolescents intending to terminate their pregnancies by abortion. These young women represent over 1/3 of those under age 20 who become pregnant each year (Alan

Guttmacher Institute, 1981). During the course of data collection, this population was found to be difficult to access. The abortion clinic's contact with the client is typically brief and there is much to do in the way of paperwork and performing the abortion procedure. The clinics are typically privately operated and unable to contribute staff time to the collection of research data. In other settings which offer services to this population, client consent for participation was rare. Research involving contact with these young women will be greatly aided by cooperation and initiative on the part of professionals working within organizations offering services to pregnant adolescents seeking abortion.

Results of the present study suggest avenues for future research. The variable of family constellation is shown to be important in understanding the ambivalence and negative emotion experienced by pregnant adolescents. This variable was measured here in a categorical manner. To better understand the influence of the living situation of the pregnant adolescent, a more sensitive measurement technique is necessary. Through the use of interviewing and history-taking, family constellation could be assessed as a dynamic rather than static property of the family. Information could be obtained about when and how often certain events occurred such as divorce, remarriage, leaving home, death, etc. More focused attention is indicated based upon present results.

In addition to interviewing as an intensive assessment technique, observational methods which allow for the direct study of family interactions will provide information about alliances within the family and role expectations for the various members. These procedures will require considerable time investment on the part of investigators and subjects. Participation and cooperation of health and mental health professionals is essential.

Finally, results point out the importance of cultural influences in the responses of pregnant adolescents to their situations. Further examination of unplanned adolescent pregnancy at the levels of culture, family, and individual is needed.

Appendix A

Description of Sample

Table 1
Demographic Variables

Variable	Mean	SD
Age	16.6	1.6
Education (Yrs. Completed)	10.3	1.3
Trimester	2.5	.7

Table 2
Percentage and Frequency of Racial Groups
Included in Sample

Race	Percentage	Frequency
White	30.9	54
Black	48.6	85
Mexican-American	18.3	32
Other*	2.2	4

Note. Based on entire sample, N = 175.

*This category includes Mexican-American and Indian, Mexican, Indian, and Central American.

Table 3
Percentage and Frequency of Groups Based on
Religious Affiliation

Religion	Percentage	Frequency
Protestant	59	101
Catholic	27	46
No Religion	14	23

Note. Based on N = 170.

Table 4

Percentage and Frequency of Income Groups Based on Estimated
Yearly Income of Household

Income	Percentage	Frequency
Less than \$10,000	52.3	67
\$10,000 - \$20,000	29.7	38
\$20,000 - \$30,000	10.9	14
Over \$30,000	7.1	9

Note. Based on the 128 subjects who offered estimates.

Table 5

Percentage and Frequency of Subjects
In Each Trimester of Pregnancy

Trimester	Percentage	Frequency
First	8.6	15
Second	31.4	55
Third	60	105

Note. Based on entire sample, N = 175.

Table 6
Percentage and Frequency of Family Constellations

Family Constellation	Percentage	Frequency
Both parents	23.4	41
Mother only	40.0	70
Father only	2.3	4
Mother and Stepfather	10.3	18
Father and Stepmother	0.6	1
Husband	2.9	5
Other*	20.5	36

Note. Based on entire sampe, N = 175.

*This category includes subjects living with a boyfriend, grandparents, siblings, other relatives, friends, or living alone.

Table 7
Percentage and Frequency of Groups Based on
Setting of Assessment

Setting	Percentage	Frequency
School programs for pregnant students ^a	69	116
Home for unwed mothers ^b	18	31
Clinics	13	21

Note. Based on N = 168.

^aEntire group from California.

^bEntire group from Texas.

Appendix B

Information Sheet

Please remember to sign the Consent Form before you begin filling out the questionnaires. To take part in this study, you must have been unmarried at the time of your pregnancy.

Age: _____

Race: (Circle one) White Black Mexican-American
Other _____

Was the pregnancy planned? (Circle one) Yes No

Number of previous pregnancies _____

Religion: (Circle one) Protestant Catholic Jewish
No Religion Other _____

Level of schooling complete: _____ Grade
_____ Year in College

Income level of household where you live: (Circle one)

Less than \$10,000 per year

\$10,000 to \$20,000 per year

\$20,000 to \$30,000 per year

more than \$30,000 per year

Do you have any medical problems right now? (Circle one)

Yes

No

How many visits to the doctors or other medical facilities have you made since becoming pregnant? _____

What have you decided to do about your pregnancy? (Circle one)

Have an abortion

Have the child, stay single, and raise it myself

Have the child, get married, raise the child with my husband

Have the child, and put it up for adoption

Have the child, and let it be raised by a relative or relatives

Other: Describe _____

How certain are you that you have made the best decision in this situation? (Circle one)

1. Not at all
2. Somewhat uncertain
3. Somewhat certain
4. Very certain

Circle those persons who know about your pregnancy.

Mother	Father	Sister(s)	Brother(s)
	Grandparent(s)	Friend(s)	

If you parents do not know, do you think your decision would be the same if they had been informed? (Circle one) Yes No

How long have you been pregnant? _____ Months
 _____ Weeks

Who do you live with? (Circle one) Both parents
 Mother only
 Father only
 Mother and Stepfather
 Father and Stepmother
 Husband
 Other _____

Appendix C

Family Environment Scale

There are 90 statements in this booklet. They are statements about families. You are to decide which of these statements are true of your family and which are false. Make all your marks on the separate answer sheets. If you think the statement is True or mostly True of your family, make an X in the box labeled T (true). If you think the statement is False or mostly False of your family, make an X in the box labeled F (false).

You may feel that some of the statements are true for some family members and false for others. Mark T if the statement is true for most members. Mark F if the statement is false for most members. If the members are evenly divided, decide what is the stronger overall impression and answer accordingly.

Remember, we would like to know what your family seems like to you. So do not try to figure out how other members see your family, but do give us your general impression of your family for each statement.

1. Family members really help and support one another.
2. Family members often keep their feelings to themselves.
3. We fight a lot in our family.
4. We don't do things on our own very often in our family.
5. We feel it is important to be the best at whatever you do.
6. We often talk about political and social problems.
7. We spend most weekends and evenings at home.
8. Family members attend church, synagogue, or Sunday School fairly often.
9. Activities in our family are pretty carefully planned.
10. Family members are rarely ordered around.
11. We often seem to be killing time at home.
12. We say anything we want to around the house.
13. Family members rarely become openly angry.

14. In our family, we are strongly encouraged to be independent.
15. Getting ahead in life is very important in our family.
16. We rarely go to lectures, plays, or concerts.
17. Friends often come over for dinner or to visit.
18. We don't say prayers in our family.
19. We are generally very neat and orderly.
20. There are very few rules to follow in our family.
21. We put a lot of energy into what we do at home.
22. It's hard to "blow off steam" at home without upsetting somebody.
23. Family members sometimes get so angry they throw things.
24. We think things out for ourselves in our family.
25. How much money a person makes is not very important to us.
26. Learning about new and different things is very important in our family.
27. Nobody in our family is active in sports, Little League, bowling, etc.
28. We often talk about the religious meaning of Christmas, Passover, or other holidays
29. It's often hard to find things when you need them in our household.
30. There is one family member who makes most of the decisions.
31. There is a feeling of togetherness in our family.
32. We tell each other about our personal problems.
33. Family members hardly ever lose their tempers.
34. We come and go as we want to in our family.
35. We believe in competition and "may the best man win."
36. We are not that interested in cultural activities.

37. We often go to movies, sports events, camping, etc.
38. We don't believe in heaven or hell.
39. Being on time is very important in our family.
40. There are set ways of doing things at home.
41. We rarely volunteer when something has to be done at home.
42. If we feel like doing something on the spur of the moment we often just pick up and go.
43. Family members often criticize each other.
44. There is very little privacy in our family.
45. We always strive to do things just a little better the next time.
46. We rarely have intellectual discussions.
47. Everyone in our family has a hobby or two.
48. Family members have strict ideas about what is right and wrong.
49. People change their minds often in our family.
50. There is a strong emphasis on following rules in our family.
51. Family members really back each other up.
52. Someone usually gets upset if you complain in our family.
53. Family members sometimes hit each other.
54. Family members almost always rely on themselves when a problem comes up.
55. Family members rarely worry about job promotions, school grades, etc.
56. Someone in our family plays a musical instrument.
57. Family members are not very involved in recreational activities outside work or school.
58. We believe there are some things you just have to take on faith.

59. Family members make sure their rooms are neat.
60. Everyone has an equal say in family decisions.
61. There is very little group spirit in our family.
62. Money and paying bills is openly talked about in our family.
63. If there's a disagreement in our family, we try hard to smooth things over and keep the peace.
64. Family members strongly encourage each other to stand up for their rights.
65. In our family, we don't try that hard to succeed.
66. Family members often go to the library.
67. Family members sometimes attend courses or take lessons for some hobby or interest (outside of school).
68. In our family each person has different ideas about what is right and wrong.
69. Each person's duties are clearly defined in our family.
70. We can do whatever we want to in our family.
71. We really get along well with each other.
72. We are usually careful about what we say to each other.
73. Family members often try to one-up or out-do each other.
74. It's hard to be by yourself without hurting someone's feelings in our household.
75. "Work before play" is the rule in our family.
76. Watching T.V. is more important than reading in our family.
77. Family members go out a lot.
78. The Bible is a very important book in our home.
79. Money is not handled very carefully in our family.
80. Rules are pretty inflexible in our household.
81. There is plenty of time and attention for everyone in our family.

82. There are a lot of spontaneous discussions in our family.
83. In our family, we believe you don't ever get anywhere by raising your voice.
84. We are not really encouraged to speak up for ourselves in our family.
85. Family members are often compared with others as to how well they are doing at work or at school.
86. Family members really like music, art, and literature.
87. Our main form of entertainment is watching T.V. or listening to the radio.
88. Family members believe that if you sin you will be punished.
89. Dishes are usually done immediately after eating.
90. You can't get away with much in our family.

Appendix D

Multiple Affect Adjective Check List

DIRECTIONS: On this sheet you will find words which describe different kinds of moods and feelings. Mark an X in the boxes beside the words which describe how you feel now - today. Some of the words may sound alike, but we want you to check all the words that describe your feelings. Work rapidly.

- | | | |
|--------------------|---------------------|------------------------|
| 1 ___ active | 28 ___ critical | 56 ___ good |
| 2 ___ adventurous | 29 ___ cross | 57 ___ good
natured |
| 3 ___ affectionate | 30 ___ cruel | 58 ___ grim |
| 4 ___ afraid | 31 ___ daring | 59 ___ happy |
| 5 ___ agitated | 32 ___ desperate | 60 ___ healthy |
| 6 ___ agreeable | 33 ___ destroyed | 61 ___ hopeless |
| 7 ___ aggressive | 34 ___ devoted | 62 ___ hostile |
| 8 ___ alive | 35 ___ disagreeable | 63 ___ impatient |
| 9 ___ alone | 36 ___ discontented | 64 ___ incensed |
| 10 ___ amiable | 37 ___ discouraged | 65 ___ indignant |
| 11 ___ amused | 38 ___ disgusted | 66 ___ inspired |
| 12 ___ angry | 39 ___ displeased | 67 ___ interested |
| 13 ___ annoyed | 40 ___ energetic | 68 ___ irritated |
| 14 ___ awful | 41 ___ enraged | 69 ___ jealous |
| 15 ___ bashful | 42 ___ enthusiastic | 70 ___ joyful |
| 16 ___ bitter | 43 ___ fearful | 71 ___ kindly |
| 17 ___ blue | 44 ___ fit | 72 ___ lonely |
| 18 ___ bored | 46 ___ forlorn | 73 ___ lost |
| 19 ___ calm | 47 ___ frank | 74 ___ loving |
| 20 ___ cautious | 48 ___ free | 75 ___ low |
| 21 ___ cheerful | 49 ___ friendly | 76 ___ lucky |
| 22 ___ clean | 50 ___ frightened | 77 ___ mad |
| 23 ___ complaining | 51 ___ furious | 78 ___ mean |
| 24 ___ contented | 52 ___ gay | 79 ___ meek |
| 25 ___ contrary | 53 ___ gentle | 80 ___ merry |
| 26 ___ cool | 54 ___ glad | 81 ___ mild |
| 27 ___ cooperative | 55 ___ gloomy | |

- 82 ___ miserable
83 ___ nervous
84 ___ obliging
85 ___ outraged
86 ___ offended
87 ___ panicky
88 ___ patient
89 ___ peaceful
90 ___ pleased
91 ___ pleasant
92 ___ polite
93 ___ powerful
94 ___ quiet
95 ___ reckless
96 ___ rejected
97 ___ rough
98 ___ sad
99 ___ safe
100 ___ satisfied
101 ___ secure
102 ___ shaky
103 ___ shy
104 ___ soothed
105 ___ steady
106 ___ stubborn
107 ___ stormy
108 ___ strong
109 ___ suffering
110 ___ sullen
111 ___ sunk
112 ___ sympathetic
113 ___ tame
114 ___ tender
115 ___ tense
116 ___ terrible
117 ___ terrified
118 ___ thoughtful
119 ___ timid
120 ___ tormented
121 ___ understanding
122 ___ unhappy
123 ___ unsociable
124 ___ upset
125 ___ vexed
126 ___ warm
127 ___ whole
128 ___ wild
129 ___ willful
130 ___ wilted
131 ___ worrying
132 ___ young

Appendix E

Informed Consent

I agree to take part in this study on unplanned pregnancy. I understand that I will be asked to fill out several questionnaires which ask about my family, my feelings, and my pregnancy. I understand that my answers to these questions are confidential and will not be revealed to anyone not involved in conducting this study. I understand that some of the questions are of a personal nature and that I may choose not to answer certain questions or stop participating at any time. I understand that the purpose of this research is to learn more about the feelings and experiences of young, unmarried women who become pregnant. I am aware that I am free to ask any questions I have about the procedure and/or purpose of this study. Finally, I understand that the services I receive from this clinic will in no way be affected by my answers to the questions or by my decision to participate or not to participate in the study.

If you wish to participate, please mark X in the box below.

Date _____

Thank you for your participation.

Keith C. Warren
Research Director

If you have questions or comments, please contact me by mail or phone.

Keith C. Warren, 44 Dalton Court, Redlands, CA 92373
(714) 792-0635

Appendix F

Table 8

Means, Standard Deviations, and Ranges for Main Variables

Variable	Mean	SD	Range
Certainty	3.5	.7	1 - 4
Negative Affect	30.1	15.4	3 - 73
Cohesion	6.4	2.2	0 - 9
Expressiveness	4.5	1.8	0 - 9
Conflict	3.5	2.2	0 - 9
Independence	6.2	1.5	3 - 9
Achievement-Orientation	6.3	1.4	2 - 9
Intellectual-Cultural Orientation	4.8	2.1	0 - 9
Active-Recreational Orientation	5.4	2.0	0 - 9
Moral-Religious Emphasis	5.7	1.8	1 - 9
Organization	5.7	2.2	0 - 9
Control	5.0	2.0	0 - 9

Appendix G

Table 9

Percentage and Frequency of Choices Regarding
Post-Delivery Plans

Choice	Percentage	Frequency
Stay single, raise the child myself	39.4	69
Get married, raise the child with my husband	37.1	65
Put the child up for adoption	19.4	34
Let the child be raised by relatives	.6	1
Other*	3.5	6

Note. Based on entire sample, N = 175.

*This category includes subjects planning to raise the child with the boyfriend or another family.

Table 13

Group Means on Discriminating Variables

Variable	Group 1		Group 2		Group 3		Group 4	
	M	SD	M	SD	M	SD	M	SD
Age	16.4	1.4	16.4	1.2	17.4	2.1	15.7	1.4
Race	1.8	.4	1.9	.3	1.1	.2	1.7	.5
Education	10.2	1.3	10.2	1.1	10.7	1.8	9.7	1.0
Trimester	2.3	.7	2.5	.6	2.9	.4	2.8	.4
Family Constellation	3.1	2.3	3.3	2.1	2.6	2.1	6.2	2.0
Negative Affect	29.5	14.6	27.9	14.3	34.6	16.0	29.3	22.3
Certainty	3.4	.8	3.6	.7	3.7	.5	3.5	.5
Cohesion	6.3	2.0	6.4	2.1	6.3	2.7	6.8	1.9
Expressiveness	4.3	1.8	4.3	1.7	5.5	1.6	4.8	2.6
Conflict	3.8	2.1	3.3	2.1	3.3	2.3	2.7	2.7
Independence	5.8	1.5	6.1	1.4	6.9	1.2	6.7	1.4
Achievement-Orientation	6.3	1.5	6.4	1.4	6.1	1.2	6.5	1.6

Table 13--Continued

Variable	Group 1		Group 2		Group 3		Group 4	
	M	SD	M	SD	M	SD	M	SD
Intellectual-Cultural Orientation	4.8	2.0	4.8	2.1	4.9	2.2	4.0	2.2
Active-Recreation Orientation	5.0	2.1	5.6	1.8	6.0	1.9	4.5	2.4
Moral-Religious Emphasis	5.9	1.7	5.9	1.8	5.2	1.9	4.8	2.1
Organization	5.7	2.1	6.0	2.0	5.1	2.6	6.3	1.9
Control	5.2	2.0	5.1	1.9	4.4	2.0	4.3	2.5

Note. Group 1 = Stay single, raise the child myself.

Group 2 = Get married, raise the child with my husband.

Group 3 = Adoption.

Group 4 = Other (raise the child with boyfriend or another family).

Appendix I

Table 16
Group Means on Canonical Variables

Choice	Can 1	Can 2	Can 3
1	.67	-.29	-.25
2	.59	.13	.34
3	-2.46	-.01	-.03
4	.65	2.03	-.64

Note. Choice 1 = Stay single, raise the child myself.
 Choice 2 = Get married, raise the child with husband.
 Choice 3 = Adoption
 Choice 4 = Other (raise the child with boyfriend or another family).

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