PERCEPTIONS OF PREGNANT ADOLESCENTS IN STRUCTURED AND NON-STRUCTURED PROGRAMS REGARDING INDIVIDUAL AND FAMILY FACTORS

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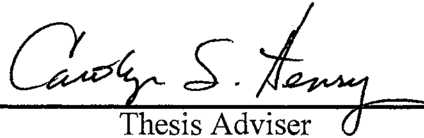

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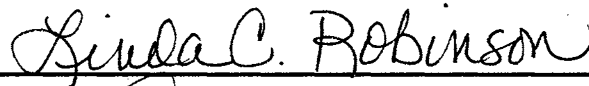

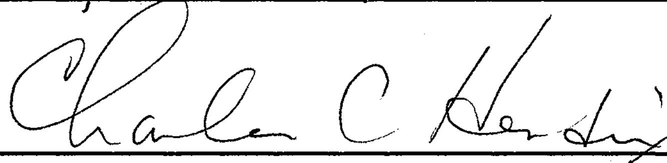

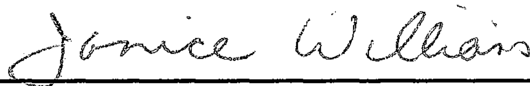

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CHAPTER I

INTRODUCTION

Although both the adolescent pregnancy rate and the adolescent birth rate in the United States declined during the 1990s, the U.S. adolescent pregnancy rate is still one of the highest in the developed world (Alan Guttmacher Institute, 1999). Approximately 500,000 adolescents will give birth each year, with 95% of those pregnancies unintended and unplanned (Arenson, 1994). Further, approximately 900,000 Americans younger than 20 become pregnant every year and Oklahoma ranked thirteenth highest in the nation in adolescent birth rates to females age 15 to 19 in 1996 (Fact Pack, 1999). Pregnancy and birth rates for American adolescents continue to be the highest among developed countries, although levels of sexual activity are comparable with other countries (Spitz, Velebil, Koonin, Strauss, Goodman, Wingo, Wilson, Morris, & Marks, 1996).

The decline in adolescent pregnancy is attributed to two mechanisms: changes in sexual behavior and change in contraceptive use (Alan Guttmacher Institute, 1999). The factors underlying these mechanisms reflect broad societal changes. Fear of sexually transmitted diseases (STDs) and the availability of new contraceptive methods may be changing the patterns of contraceptive use among adolescents. Also, strong national and state economies offer better career opportunities for adolescents. Welfare reform constraints regarding qualifications for public assistance may also impact sexual activity, since better education and employment opportunities are linked to lower adolescent pregnancy and birth rates (Alan Guttmacher Institute, 1999). Societal costs (long-term

financial assistance) and individual costs (both physical and psychological) as well as the public health impact have also been well-documented (White & DeBlassie, 1992).

Significance of the Problem

The best strategy for continuing the decline in adolescent pregnancy rates is a multifaceted approach (O'Donnell, SanDoval, Duran, Haber, Atnafou, Johnson, Grant, Murray, Juhn, Tang, & Pissens, 1999; Perkins, Luster, Villarruel, & Small, 1998), with emphasis placed in two particular areas: postponing intercourse (abstinence) and supporting sexually experienced adolescents who wish to refrain from further sexual activity (Alan Guttmacher Institute, 1999). Previous research demonstrates that most young people become sexually active during their adolescent years (Steinberg, 1999). Therefore, sexual education should prepare adolescents to prevent STDs and pregnancy if they choose to become sexually active. According to adolescents, a major problem in sex education is that the information comes too late or is not relevant to the life situations they face (Health Policy & Child Health, 1996).

The challenge is to address sexual issues at younger ages before there are negative consequences (Doswell, 1999). Rather than focusing on correcting negative behavior, new programs are promoting positive values and adolescent developmental assets to promote resilience and prevent, reduce, or correct adolescent risk-taking behaviors (Doswell, 1999).

These types of programs go beyond knowledge-based interventions to include promoting healthy living and positive decision-making skills to promote an overall lifestyle impact. The Adolescent Family Life Act (AFLA, 1981) proposed family based programs for preventing or postponing adolescent sexual activity based on the idea that

such programs maximize the guidance and support available to adolescents from parents and other family members (White & White, 1991).

Focusing on family based programs allows gathering of information regarding the competencies and capabilities of families from their own perspective. In this manner, families can build on existing capabilities and can learn new competencies (Trivette, Dunst, Deal, Hamer, & Propst, 1990). The definition of family strengths developed by Trivette et al., (1990) will be utilized as a reference point:

> ...family strengths are the competencies and capabilities of both various individual family members and the family unit that are used in response to crises and stress, to meet needs, and to promote, enhance, and strengthen the functioning of the family system (p. 18).

Family strengths are identified in the literature as correlates of both sexual activity and risk taking behavior in the adolescent (Young, Jensen, Olsen, & Cundick, 1991).

Although the reported United States adolescent pregnancy rate for 1996 declined 14% from the 1990 rate, the United States continues to have the highest adolescent pregnancy rate of any industrialized country (Kids Count Special Report, 1998). At first glance, these lower statistics may lead some to conclude that the problem of adolescent pregnancy is well on the way to being solved. However, these recent figures must be interpreted with caution. Declining rates of pregnancy alone do not provide information regarding which interventions are successful in which contexts. Future research is needed to expand and further refine these programs. Efforts must continue which focus on flexible, comprehensive, and holistic approaches to deal with the problem of adolescent pregnancy and parenthood and the associated consequences.

Statement of the Problem

Adolescent pregnancy and intervention programs are studied from a variety of viewpoints. Certain authors (White & DeBlassie, 1992; Cullari & Mikus, 1990; Muram, Rosenthal, Tolley, Peeler, & Pitts, 1992) focus on the long term economic costs of adolescent pregnancy on American society; others concentrate on the lack of emotional and physical preparedness of adolescents to parent (Muram et al., 1992; Streetman, 1987); and some are interested in the welfare of the children born to adolescent parents (White & DeBlasssie, 1992; Arenson, 1994).

Regardless of the specific area of concern, the majority of the existing literature focuses on intervention with adolescent parents or mothers ***after*** the pregnancy occurred or the baby was born. Yet, it is also important to understand adolescent pregnancy as experienced by adolescents before the birth of the child. At least two studies have attempted to identify sexual precocity, personal traits, dating practices, and sexual beliefs that lead to an increased risk for adolescent pregnancy (Rosenthal, Muram, Tolley, Peeler, & Pitts, 1992; Muram et al., 1992). Self-esteem and communication are identified as important correlates of sexual activity and vulnerability to adolescent pregnancy (Streetman, 1987; Litt, 1996; Masselam, Marcus, & Stunkard, 1990; Baldwin & Baranoski, 1990). Only one article specifically focused on strengths, and concentrated on adolescent females who had already borne children (Arenson, 1994).

In addition to the sheer numbers of infants born to adolescent mothers, society feels the impact in other, less tangible ways. Adolescent mothers and their infants have higher poverty rates, increased incidence of isolation, and long-term financial dependence on society (Arenson, 1994). Oklahoma reported the public cost of adolescent

childbearing for 1991 as $219,000,000 (Oklahoma Medical Research Foundation, 1992). Nine out of ten adolescent pregnancies in the United States are unintended and 31% of adolescent mothers have repeat pregnancies within two years. Although the public seems to be aware of the problems associated with adolescent pregnancy, proposed solutions of education, counseling, and provision of free birth control services have done little to reduce the frequency of teenage pregnancy (Blank, 1991).

Although the societal response to adolescent pregnancy has changed over the last two decades from a punitive approach toward providing healthcare and community services to the adolescent and her child, there is still much work to be done regarding the social problem of adolescent pregnancy (Mercer, 1985). The economic stress and financial burdens incurred by all involved in adolescent pregnancy have far-reaching effects on society. The federal government spends $30 billion per year in social services to adolescents and their babies. Approximately 5% of adolescent mothers receive college degrees compared with 47% of those who have children at age 25 or older. One third of daughters of adolescent mothers will become adolescent mothers, perpetuating a cycle of financial hardship. Adolescent mothers are less likely to finish their education, less likely to earn adequate wages, and more likely to spend years on welfare (Cass, 1994).

In 1987, the National Research Council (NRC) identified five types of adolescent pregnancy interventions: abortion services; prenatal and perinatal health care services; economic support programs; services to improve the social, emotional, and cognitive development of adolescent mothers; and programs that enhance the life options of adolescent parents (Coates & Van Widenfelt, 1991).

School-based clinics which focus on combining health promotion with health services appear to be an effective strategy for preventing teen pregnancy (Heller, 1988). School-based clinics have gained widespread acceptance and show that when services are accessible, affordable, and designed for adolescents, this population will use health care appropriately and effectively (Johnson, 1986). Knowledge is a useful resource for people coping with crises or transitional events. These clinics have shown an interdependence between health and education, making both conditions necessary for optimal adolescent development and health care. School-based clinics focus on primary prevention including delaying early sexual activity, improving contraceptive use, and providing education regarding sexuality, contraception, and family planning services.
Clinics are trying for a third order change in behavior -- one which will change the way the system operates and will not allow functioning in the previous fashion. The solutions to adolescent pregnancy are as multifaceted as the underlying causes. A comprehensive focus on health care and education for the entire family system may be an appropriate approach to a complex situation.

Another type of program which appears to be effective in dealing with adolescent pregnancy includes a risk-factor reduction program which increases the opportunities for adolescents to build competencies and skills to confront different situations (Perkins et al., 1998). Community-based programs such as the Reach for Health Community Youth Service Learning Program go beyond curriculum-only approaches in producing desired behavioral changes and extend classroom learning into the community (O'Donnell et al., 1999). A combination of prevention and intervention programs which target pregnant

adolescents will provide the most effective results with this target population (Koniak-Griffin & Brecht, 1995).

Purpose of the Study

The primary purpose of this study was to understand whether pregnant adolescents had a life plan, whether the life plan had changed since becoming pregnant, the expected challenges and strengths as an adolescent mother, and expected help needed in childrearing. The study was conducted from the adolescent's perspective, which makes this study different from those conducted previously. A secondary purpose of this study was to determine whether there was a difference between structured and non-structured programs on parent/adolescent communication patterns, parental monitoring behaviors, parent/adolescent support, parental psychological control, and locus of control.

Research Questions

Several research questions served to guide the research effort. These included the following:

1. What were the adolescent's life goals before the pregnancy?
2. What are the adolescent's life goals since becoming pregnant?
3. How do adolescents perceive their family's response to the pregnancy?
4. What strengths do pregnant adolescents perceive they will bring to motherhood?
5. What challenges do pregnant adolescents think they will face as mothers?
6. What kind of help do pregnant adolescents expect to need in childrearing?

7. Is there a difference in parent/adolescent communication patterns between pregnant adolescents who participate in a structured educational atmosphere and pregnant adolescents who participate in a non-structured environment?
8. Are perceptions of parental monitoring behaviors the same for pregnant adolescents who participate in a structured educational atmosphere as for those who participate in a non-structured environment?
9. Do pregnant adolescents who participate in a structured educational atmosphere perceive the same levels of parent/adolescent support as pregnant adolescents who participate in a non-structured environment?
10. Are the perceptions of parental psychological control consistent for both pregnant adolescents who participate in a structured educational atmosphere as well as those who participate in a non-structured environment?
11. Is there a difference with respect to reported locus of control between pregnant adolescents who participate in a structured educational atmosphere and those who participate in a non-structured environment?

Theoretical Orientation

A number of different theories are utilized to discuss adolescent pregnancy and parenting. Rodgers and Rowe (1990) discuss two common theoretical lenses with which to view adolescent behavior: 1) to build a theory specific to a phenomenon of interest, and 2) to apply a previously existing theory to adolescent sexual behavior. A large amount of atheoretical work exists which attempts to link adolescent sexual behavior with other behavioral and demographic correlates. According to DiBlasio and Benda (1992), piecemeal theoretical statements and inconsistent empirical evidence are the rule,

rather than the exception, when looking at adolescent research relating to sexual behavior.

Specific theories which have been used to discuss adolescent sexual behavior are humanistic nursing (Arenson, 1994); Erikson's developmental stages (Holt & Johnson, 1991); power-dependency within a social exchange network (Kalof, 1995); sex education within a family systems context (Baldwin & Baranoski, 1990); problem behavior syndrome (Whitbeck, Conger, Simons, & Kao, 1993); social learning, sex role, containment, differential association theory (DiBlasio & Benda, 1992); and the psychoeducational model (Rhoden & Robinson, 1997). Controversy exists regarding each theory's view of whether adolescent sexual behavior is a normal part of development or an abnormal behavior. Family life educators need to stay current in research and implications. Since more than one theoretical approach can be effective, researchers need to provide concise, useful data to clinicians. While a number of theories could logically be used as "glasses" to view the problem of adolescent sexual behavior, the one chosen to guide this study was family developmental theory (FDT).

Family Developmental Theory. The family developmental perspective draws from many other theories: cognitive, symbolic interactionist, systems, and psychoanalytic. Family developmental theory has unique philosophic and methodological perspectives which contribute to a holistic view of the family (Mercer, 1991). Family development occurs within multiple contexts in a continual, dynamic process (McCool, Tuttle, & Crowley, 1992).

Family development is viewed as a process with norms (or behavioral expectations) that fulfill role expectations for individuals within the family as a unit.

Deviations from norms lead to sanctions when expectations are not met. Sanctions are not always present, felt, or internalized. Development occurs in a spiral fashion: lower levels of functioning remain in addition to the higher levels achieved (Rodgers & White, 1993). These co-existing levels allow the family to move back and forth between levels during periods of stress. During transitional periods from one stage to the next, disequilibrium occurs. During this time, an individual may revert to an earlier level of developmental functioning. Resolution of disequilibrium has the potential to lead the family to a higher level of functioning. Family developmental tasks parallel individual developmental tasks and families may arrive at similar developmental stages through different processes (equifinality).

Hill and Hansen (1960) have described the following assumptions as they relate to Family Developmental Theory:

1. Human conduct is best seen as a function of the preceding as well as the current social milieu and individual conditions.
2. Human conduct cannot be adequately understood apart from human development.
3. The human is an actor as well as a reactor.
4. Individual and group development is best seen as dependent on stimulation by a social milieu as well as on inherent (developed) capacities.
5. The individual in a social setting is the basic autonomous unit.

Family developmental theory stresses the importance of time. In FDT, changes occur over time as developmental tasks are achieved. Family developmental theory posits that relationships change over time, are dynamic as opposed to static, and suggests

that the family of origin is important in forming relationships later in life. Family Developmental Theory views the family as a system which is constantly facing transitions and normative events.

FDT views individual and family development as occurring within multiple contexts over time (McCool, Tuttle, & Crowley, 1992). Specifically, the issues of expanding or shrinking family boundaries or family transitions are easily understood in the context of FDT (Mercer, 1991). Family Developmental Theory posits that behavior is best understood within the context of the family. FDT has a broad theoretical base which allows for creative, innovative approaches to its use. Because the theory has a time-oriented approach, families may be compared on a consistent basis. Family developmental tasks are seen as parallel to individual developmental tasks. The processes for arriving at these tasks may vary greatly among families. FDT focuses on interactions or relationships among family members and requires that all families move though the same transition events.

White (1991) discusses "evolutionary change" as a process by which change in the norms of one institution create a disjunction in the norms of another institution. In a society in which adolescents are engaging in sexual activity at earlier ages and the pregnancy rate has stabilized at a high level, the family is required to make accommodations to adapt to these changes. Changes are termed adaptive or maladaptive based on the realignment of cross-institutional norms (White, 1991). A behavior that may be viewed as deviant within the institution of the family may be perceived as normative by society. As the frequency of breaking a norm increases, the family norms change. White (1991) further states shifts at the aggregate level in the frequency of

behavior (deviance) precede shifts in sanctions at the group level. Behavioral changes in the form of deviance from existing timing and sequencing norms precede changes in normative expectations. Family norms must shift if society is to continue to operate in a systematic, organized fashion.

If the deviant behavior becomes modal, the process of a change to new sequencing and timing norms is complete. Although adolescent pregnancy may not yet be modal in American society, the frequency of occurrence is causing families who experience this event to adapt and change their sequencing and timing norms.

Another variation on the family life cycle is the acceleration of stages which occurs when a family experiences an adolescent pregnancy (Fulmer, 1988). An event such as this requires a change in the membership and caretaking structure of the family. Parents may have attempted strict control over the adolescent's behavior prior to the pregnancy, but may relax those controls to support the new mother and infant after the pregnancy has occurred. Roles in the family must be readjusted after the birth of the baby as the family enters another family life cycle stage.

Adolescent pregnancy may meet the needs of both the adolescent and other family members. Multiple tensions, both personal and intergenerational, may surface when an adolescent becomes pregnant (Fulmer, 1988). The pregnancy has far-reaching effects on all family members, not just the pregnant adolescent. Behaviors which were viewed as conflictual prior to the pregnancy may be redefined as appropriate for a pregnant family member. Pregnancy may become the focus for the family and other once-important issues may be displaced, forgotten, or ignored.

Family structure changes with circumstances and it is impossible to describe a single family life cycle that will be appropriate for all families. Families are dynamic and have the capability to create a stable and predictable environment under almost any circumstances (Fulmer, 1988).

Adolescent Pregnancy as Explained by Family Developmental Theory. In Family Developmental Theory, family transitions combine the concepts of stage, event, and time. A transition occurs when a family moves from one distinct stage to another (Rodgers & White, 1993). Family Developmental Theory would view adolescent pregnancy as an "off time" event which would require the family to change itself in order to align with its environment (adaptational change). How a family adapts in response to an adolescent pregnancy is dependent upon how the family has adapted to previous stages of development.

Aldous (1978) updated FDT to include "life course analysis" which focuses on individual family members' perceptions of spacing of family events and their social meaning. Aldous' interpretation also includes an assumption that family behavior is the sum of past experiences of family members as incorporated into the present as well as in their goals and expectations for the future.

The occurrence of an adolescent pregnancy in a family would be an example of understanding individual development in the context of a family unit. Family Developmental Theory would posit that resolution of the disequilibrium (the adolescent pregnancy) has the potential to lead the family to a higher level of functioning. If the family of origin decides to help the adolescent mother raise her child in their home, the

multigenerational family system could be viewed as "recycling the family," a phenomenon that includes reliving earlier stages of development.

Identifying issues that are typically experienced by pregnant adolescents and their family members will allow program development and family interventions to be directed appropriately and effectively. Normative developmental tasks can be identified and preventions and interventions can address these specific developmental tasks. Because pregnant adolescents experience the normal developmental tasks of adolescence as well as those of pregnancy, focused individual and family interventions are required to most effectively meet these additional demands. The most effective programs are those directed to the developmental needs of the adolescent and which intervene at multiple points in time (Coley & Chase-Lansdale, 1998).

Definition of Terms

Specific terms used in the study will be defined as follows:

Family strengths: the extent to which families are able to cope with problems and conflicts that arise in family living (Brage, Meredith, & Woodward, 1993).

Self-esteem: an individual's attitude toward the self; foundation for positive communication and interaction in the family (Small, 1998).

Adolescent sexual activity: includes frequency of sexual activities and the number of sexual partners (Benda & DiBlasio, 1991).

Adolescent risk-taking behavior: refers to actions taken by one who knowingly risks harm by engaging in a particular activity (Gordon, 1996).

Parent/adolescent communication: two-way discussion between a parent and an adolescent in which information is exchanged (Rodgers, 1999).

Parental monitoring: behavioral control exerted by parents; usually overtly exhibited by parents having knowledge of their adolescent's whereabouts (Rodgers, 1999).

Locus of control: (external vs. internal) an adolescent with internal locus of control feels that the decisions one makes effect what happens; one with an external locus of control believes that chance or other people control life events (Gordon, 1996).

Parental support: open and supportive relationship between a parent and child (Rodgers, 1999).

Parental psychological control: presence of psychological autonomy which allows the processes of social and psychological maturation that are necessary for adolescents to make responsible choices about their behaviors (Rodgers, 1999).

Life plan: goals adolescents set for their adult life; sense of personal competence and determination (Camarena, Minor, Melmer, & Ferrie, 1998).

Structured environment: comprehensive educational program for school-age pregnant adolescents offering academics, health education, counseling, and child care services.

Non-structured environment: program for pregnant adolescents offered through a city-county health department that involves limited health education and group classes covering normal physiologic and psychologic changes of pregnancy.

Developmental tasks: specific issues that arise at or about a certain time in the life of the family. The successful accomplishment of one task leads to happiness and success with later tasks; failure to complete developmental tasks can lead to problems or social disapproval in later stages (Rodgers, 1973).

Family life cycle: attempt to explain the nature of family change over time; attempt to discuss normal developmental changes of the family with an attempt to incorporate family emotional processes as well as position or role (Carter & McGoldrick, 1980).

Family transitions: combines the concepts of stage, event, and time; a transition occurs when a family moves from one qualitatively distinct stage to another stage (Rodgers & White, 1993).

Assumptions and Limitations

Several assumptions were made pertaining to this study. These include the following:

1. Subjects will answer all questions honestly.
2. Subjects will answer all questions to the best of their cognitive capability.
3. Subject (adolescent) viewpoints are important; the adolescent's feelings and response to the effects of pregnancy on future life plans will contribute to the study of adolescent pregnancy.

Factors that limit the study include the following:

1. The use of a convenience sample limits the generalizability of the study results.
2. The relatively small sample size also limits the utility in predicting outcomes in other populations.
3. Measures in this study were only reported by adolescents and no information was collected from parents, peers, or school personnel.
4. There may be other factors that were not considered in this study that need to be identified and considered in a study regarding adolescent pregnancy.

Summary

Regardless of preferred research tradition, the interaction of family processes and the well being of children is a critical family science issue. Particularly in the adolescent research arena, more studies that focus on family communication style and parenting behaviors are needed. Few longitudinal studies have been conducted; this type of research is essential to determine which family behaviors function effectively over time, as the adolescent's needs change. In addition to quantitative studies which report on summary statistics for a particular variable of interest, qualitative studies focus on studying a phenomenon from the subject's perspective. Focus groups are one method used to determine participant attitudes related to a specific topic. A combination of these two methods allows a broader, more comprehensive approach to a particular issue.

The problem of adolescent pregnancy and parenting is one which will not soon or easily be solved. The solution seems to be multifactorial and should involve families, schools, religious, community, government, media, and healthcare providers (Litt, 1996). A change in social values regarding adolescent pregnancy and parenting will not occur quickly. The solution will require interested, nonjudgmental adults willing to elicit concerns and offer practical help to adolescents (Braverman & Strasburger, 1993). Social and contextual factors must be considered including improving the adolescent's sense of security and closeness in the family to provide a stable base from which to grow and develop. Identifying developmental tasks of both adolescence and pregnancy and using these in working with adolescents will reduce the personal, familial, and societal costs associated with adolescent pregnancy.

CHAPTER II

REVIEW OF LITERATURE

Various areas of scholarship give rise to the context of adolescent pregnancy and parenting and family communication skills. For this selected review, two of the areas will be explored to provide a background for the context of this study. First, a summary of adolescent risk-taking behaviors as they specifically relate to sexual activity will be presented. Second, this will be followed by a discussion of family communication patterns and the presence of a significant life plan. Following these sections, specific concepts and variables in the study are reviewed.

Sexual Activity as Crisis vs. Developmental Event

Erikson (1950) defined the developmental crisis of adolescence as identity versus role confusion. Adolescents are forming a sense of personal identity and experience confusion regarding their role in adult society (Holt & Johnson, 1991). Adolescents negotiate this crisis by completing two developmental tasks: 1) independence from parents and 2) achieving adult identity by integrating a gender identity, intellectual identity and career identification.

For many adolescents, sexual experimentation may precede the formation and acceptance of a gender identity (Holt & Johnson, 1991). Havinghurst (1952) discusses the adolescent's need to achieve new and more mature relations with peers of both sexes. Both physical and emotional changes and differences can be accommodated during this developmental stage.

The primary lessons at this stage are emotional and social rather than intellectual. Formal thinking abilities develop during adolescence, although the adolescent may still be characterized by a sense of invulnerability known as the "personal fable" (Elkind, 1967) - the thought that bad outcomes or consequences can happen to everyone else, but not to me. In times of increased stress, adolescents may revert to concrete thinking, making them unable to consider the long-term consequence of pregnancy and/or sexually transmitted disease related to sexual activity (Holt & Johnson, 1991).

Urberg (in Furhmann, 1986) generated a theoretical model which listed five necessary competencies for effective contraceptive use:

1) problem recognition
2) motivation
3) generation of alternatives
4) decision making
5) implementation (pp. 229-230)

The contraceptive decision is one which requires complex cognitive skills which are not fully developed in the adolescent. These are the same competencies which come into play when adolescents begin considering whether or not to become sexually active.

This lack of fully developed cognition may lead the adolescent to make a choice with outcomes that are beyond this limited comprehension. In some cases, these consequences may last a lifetime, something for which the "here and now" adolescent is completely unprepared.

Adolescence is a time of many physical changes. For example, hormone levels, particularly in males, escalate. The elevated hormones increase the erogenous sensitivity of the sex organs in preparation for future procreation (Fuhrmann, 1986). Also, during this time, increased curiosity regarding sexuality is considered a normative event by many researchers. Fuhrmann (1986) defines one of the tasks of adolescence as moving from a nonsexual child to a sexual adult. Sexual activity is considered one of a number of exploratory activities or transition behaviors to adulthood. Other examples of such transition behaviors are smoking, drinking, and drug use.

Identification of Risk-Taking Behaviors

Depending on the source cited, a variety of activities can be labeled adolescent risk-taking behaviors. A synthesis of authors was developed to establish the list for this research. Irwin and Millstein (1991) identify three categories of adolescent risk-taking behaviors:

1) behaviors that are pathogenic (e.g., suicide)
2) behaviors that are a result of environmental and/or sociologic forces (e.g., homicide)
3) behaviors that result from the interaction of the biopsychosocial processes of adolescence and the environment (e.g., substance use, sexual activity, vehicle use) (p. 934).

In order for a behavior to be labeled risk-taking, the behavior must be voluntary and have an uncertain outcome. The outcome must include a potentially non-injurious as well as a potentially harmful outcome.

Risk-taking behaviors do not exist in isolation, but are associated with others in predictable ways (Irwin & Millstein, 1991). Risk-taking behaviors may appear to be a part of normal adolescent maturation. Experimentation with a variety of behaviors is necessary for healthy adolescent development. However, a distinction must be made between normal transitional risk-taking behaviors that can enhance development and those behaviors that are pathological expressions with little evidence of gain for the adolescent (Irwin & Millstein, 1991).

Alcohol and drug use have been correlated with sexual activity, largely due to the lowering of inhibitions that results from their use. Because the novice adolescent is unaware of how the body metabolizes such substances, even small amounts of chemicals can render the adolescent incapable of making rational choices while "under the influence." The close association between alcohol use and accidental injury has been well established. Substance use is positively correlated with early sexual activity (Irwin & Millstein, 1991).

Although the adolescent's body may be physically ready for sexual activity, the sense of the emotional and social responsibilities that accompany intimacy is not present. The heterosexual adolescent typically moves through a process from monosexual groups to smaller mixed sex groups to individual dating. This slow progression of commitment allows the adolescent to develop the intimacy of psychological as well as physical maturity that is necessary for complete sexual development (Fuhrmann, 1986).

If previous family communication influences discussions of sexual activity, early interventions with the family should focus on promoting and enhancing the communication ability among family members (Trivette et al., 1990). In this approach,

family strengths are recognized as an important part of intervention. The family's strengths can be utilized to promote growth and development of all family members.

Initiation of Sexual Activity

A distinction must be made between what the literature terms "sexual debut" or age of first intercourse and "current sexual practice and patterns" (Journal of the American Medical Association, 1997). Popular opinion holds that once a teen becomes sexually active, the pattern continues. However, there is evidence that a growing number of teens may experiment with sexual activity once, and determine that the behavior is not acceptable or appealing to them (Benda & DiBlasio, 1991). The idea that an initial sexual experience necessarily leads to the development of a full-fledged sexual career may be erroneous and lead to an inaccurate picture of adolescent sexual activity (Olsen, Jensen, & Greaves, 1991).

Factors Related to Adolescent Risk-Taking Behaviors

Role of Peers. Peers have a major influence on an adolescent's sexual behavior. Adolescents who perceive their peers to be sexually active are more likely to engage in sexual activity. However, a strong parental/adolescent link can outweigh peer influences. A solid family bond does not allow peer groups to assume greater influence over adolescents than the family has.

Role of the Healthcare Provider. In contrast to what is commonly believed, knowledge regarding sexually transmitted disease transmission and pregnancy does not predict safer sexual practices. The physiological drive for sexual activity, a sense of invulnerability to harm, and a drive for meaningfulness in relationships all combine to make sexual intercourse seem desirable to the adolescent (Keller, Duerst, & Zimmerman,

1996). These researchers have identified the following interventions as appropriate for use when discussing teenage sexual activity:

1) restoring a sense of control
2) careful use of fear-inducing strategies
3) developing the ability to engage in consequence thinking (p. 129).

One scenario which has been suggested as an opportune time to offer education is termed the "pregnancy scare." Braverman and Strasburger (1993) identified that an office visit to determine whether or not an adolescent is pregnant is a prime "teachable moment" to discuss prevention of a future unwanted pregnancy. At this time, contraception, factors related to the decision to become pregnant, and negotiation of sexual relationships could all be addressed. Sensitive counseling at this critical juncture could help adolescents get a more realistic idea about the potential impact of an unintended pregnancy.

Role of the Parents. One hotly debated aspect of adolescent pregnancy and parenthood centers around parental consent, not only for reproductive services, but for any type of sexual education. Highly controversial is whether discussions of risk-taking behaviors actually encourage adolescents to engage in those activities. Contrary to the opinion of the majority of the lay public, research has demonstrated that this type of factual information presented to adolescents actually delays the onset of sexual activity and may decrease the number of sexual partners, the number of unplanned pregnancies, and sexually transmitted disease rates (Kids Count Special Report, 1998).

Further, The Kids Count Special Report (1998) states that 73 per cent of all Americans believe that ***sexually active*** adolescents should have access to birth control

methods. Ironically, in the same report, 95 percent of Americans believe that abstinence while in high school is "very important." At the center of this debate is the paradox: safe sex approaches stress abstinence but emphasize information and education in safer-sex skills and behavior while abstinence interventions focus on values, attitudes, and skills for postponing sexual activity (Moore, Psaty, & Kurberg, 1998). The clash between ideology and science for both adolescents and adults is obvious and may jeopardize the health of our youth.

The protective role of a supportive environment is crucial during adolescence. Parental behavior and style are important correlates of the onset of risk-taking behavior of adolescents (Irwin & Millstein, 1991). Increased parental involvement may prevent the onset of the more harmful risk-taking behaviors and may decrease the most negative outcomes of such activity.

Adolescent Risk-Taking Behavior

Although the majority of discussion related to teenage pregnancy addresses females, most of the literature reviewed does not show gender differences in factors which account for variances in sexual behavior. In a study conducted by DiBlasio and Benda (1992), commitment to achievement goals and pursuits to attain these goals made adolescents less likely to engage in risk-taking behaviors which would jeopardize their future. Central to this discussion is the belief that sexual activity is a greater risk for females than for males because of the risk for pregnancy and greater social stigma.

The bulk of theoretical discussion regarding adolescent sexual activity focuses on a tenet of social learning theory which states that sexual exploration results from modeling peer behavior which is learned from social communication within intimate

groups. This transition to sexual activity is experienced by males and females alike. Future discussions will certainly attempt to determine whether the family, the peer group, or some combination of the two has the ultimate influence over an adolescent's risk-taking behavior.

Factors Related to Sexual Activity

Multiple factors have been identified as affecting sexual activity (Braverman & Strasburger, 1993; Benda & DiBlasio, 1991). Although some studies have attempted to delineate contributing factors affecting sexual activity, not all factors appear equally significant across studies. One point that most studies agree on is that there are many diverse paths an adolescent can take to develop a particular behavior; therefore, research efforts to find a single cause may not be useful. Another point of agreement is the complex interplay of physiological and psychological components that comprise adolescent risk-taking behaviors.

Small and Luster (1994) describe a cumulative, ecological, risk-factor approach to the initiation of sexual activity. Rodgers and Rowe (1990) discuss environmental factors as having both correlational and causal relationships with adolescent sexual behavior. A path model conceptualized by Whitbeck et al. (1993) hypothesized that transitions to age-related deviant behaviors involve a process of progressive early adoptions of adult behavior.

Klein in Fuhrmann (1986) states that adolescents who are adequately prepared with accurate information and sound decision-making skills can make informed decisions related to sexual activity. Research demonstrates that early factual education is a primary weapon in the fight against early sexual activity. However, in contrast, another school of

thinking embraces the idea that knowledge regarding sexual activity does not equal better decision-making.

Adolescent Reproductive Health Concerns

Health concerns such as sexually transmitted diseases and HIV infection are equally as concerning as the adolescent pregnancy rate. There has been both a decrease in the overall number of teen pregnancies and a documented increase in the use of condoms and contraceptives between 1990 and 1996 (Kids Count Special Report, 1998). Instead of becoming complacent about the recent encouraging statistics, researchers and practitioners must be diligent in identifying and implementing effective programs to further impact both the pregnancy and sexually transmitted disease rate among adolescents.

Recent research reported in the Mortality and Morbidity Weekly Report (1998) suggests that the decrease in sexual activity could lead to an improvement in adolescent reproductive health outcomes. These data have been attributed to a number of multidisciplinary efforts involving parents, adolescents, schools, media, religious communities, and community-based and governmental agencies. Expanded efforts in these areas could perpetuate the reversal in these adolescent sexual health trends.

Concepts Related to Adolescent Pregnancy

Several concepts have been identified in the literature as being important to the study of adolescent pregnancy. The specific concepts which will be addressed in this study are the following: 1) parent/adolescent communication, 2) parental monitoring, 3) parent/adolescent support, 4) parental psychological control, and 5) locus of control.

Definitions and previous study results utilizing these concepts are presented in this section.

Parent/Adolescent Communication. Although an extensive amount of literature discusses the importance of parent/adolescent communication, there is some disagreement about the extent of its importance. Satir (in Small, 1988) states that high self-esteem is the foundation for all positive interaction and communication within the family. Healthy families are those who raise their children to be competent, capable individuals who have a strong sense of self-worth. Small (1988) posits that parents must feel good about themselves and their capabilities in order to raise such children.

Just the existence of communication, however, is not enough. Studies have shown that simply increasing an adolescent's knowledge about sexual behavior has little impact either positively or negatively on their sexual behavior (Steenberg, 1996). Communication must involve a two way exchange for the information to be translated into something useful to the adolescent. Litt (1996) stated that the foundation for responsible sexual decision-making is laid within early childhood experiences of intrafamilial communication that enhance self-esteem and model nonexploitive interactions and respect between the sexes. Open communication within a family can also enhance a young woman's self-confidence in communicating with a sexual partner.

Positive general communication between parents and adolescents has been associated with less frequent intercourse and fewer sexual partners (Miller, Forehand, & Kotchick, 1999). Positive communication may foster an identification with parental values and may decrease the possibility of engaging in sexual intercourse. Higher levels of general communication are more strongly and consistently related to lower levels of

adolescent sexual behavior than was parent/adolescent communication that was specifically about sex (Miller et al., 1999). General communication may serve as an overall predictor of the quality of the parent/adolescent relationship, which has been shown to be a powerful predictor of adolescent behavior.

Although the conflicting results throughout the literature do not make a clear-cut case for the significance and/or importance of parent/adolescent communication, all adolescents should receive access to factual, relevant information, even if it comes from sources other than parents, such as school-based programs and multi-media campaigns (Hutchinson & Cooney, 1998).

Parental Monitoring. Parental monitoring or behavioral control is defined as behaviors which focus on the amount of time parents spend finding out about their adolescent's friends and activities. Parental monitoring may be determined by the proportion of the adolescent's friends that the parents know, the knowledge of the adolescent's whereabouts, and the way the adolescent spends money (Rodgers, 1999).

Adolescents with a close family relationship characterized by support and trust may be more likely to internalize their parents' concerns and control efforts. These adolescents may view parental monitoring as an act of caring rather than an act of distrust (Rodgers, 1999). The concept of monitoring can be viewed in a broader context by considering communities a monitoring assistant by providing adult supervision for adolescent activities (Small & Luster, 1994).

Low parental monitoring has been identified in a number of studies as a predictor of adolescent sexual activity (Small & Luster, 1994; Rodgers, 1999). In Small and Luster's (1994) ecological model of selected risk factors for adolescent sexual activity,

individual, familial, and extra-familial levels are all identified as important settings in which risks may be present.

Since previous research has documented that an adolescent's perception of an event may be as influential as its actual occurrence, the belief that a parent or adult is monitoring an adolescent's behavior may be almost as important as the actual monitoring. Adolescents who are carefully monitored are less likely to be sexually active (Small & Luster, 1994). These data suggest that parents can be key players in the delaying of adolescent sexual activity.

Parent/Adolescent Support. Parental support plays a role in the sexual risk-taking behaviors of adolescents. An open and supportive relationship between mother and daughter may moderate the effect of communication on sexually risky behavior (Rodgers, 1999). Sexually active adolescents who took risks (had multiple partners and used contraception inconsistently) perceived their parents to be less supportive (Luster & Small, 1994). The parent-child bond creates an atmosphere in which parents' views of adolescent behavior, expressed directly or indirectly, may be internalized by the adolescent. If these views are internalized, they may play a protective role by encouraging sexually active adolescents to decrease their sexual risk.

Parental Psychological Control. Adolescents whose parents have allowed them psychological autonomy may be more likely to demonstrate responsible sexual behavior (Rodgers, 1999). Psychological and behavioral control are likely to be related to both internalized and externalized problem behaviors, but psychological control is most strongly related to internalized behavior such as low self-esteem (Barber, 1992).

Adolescents who are allowed autonomy develop psychological maturity and moral internalization necessary to make mature sexual decisions (Rodgers, 1999).

Locus of Control. Rotter (1966) developed a scale that was originally used to measure whether one attributed rewards based upon the individual's behavior or external forces. Locus of control (LOC) is defined as either internal or external: an adolescent with an internal locus of control feels their decisions will have an effect on what happens; an adolescent with an external locus of control may not even attempt to make decisions because the belief is that chance or other people control what happens in life (Rotter, 1965). Locus of control may be helpful in understanding an adolescent's use of contraceptive methods (Gordon, 1996).

The original scale had 29 pairs of statements in a forced choice format; 23 which were designed to measure locus of control, and six which were filler items (Barnett & Lanier, 1995). Items on the scale have been grouped further into clusters defined as "ideology control" and "personal control." Three items in the original scale discussed the amount of control one perceives over success in a career; two items dealt with personal control over general aspects of life; and several items assessed the extent to which one felt that "luck" played a significant role in their lives (Barnett & Lanier, 1995).

Locus of control plays a significant role in the adolescent years as the adolescent fluctuates between a sense of personal identity and a confusion over the roles in an adult society (Holt & Johnson, 1991). Erikson labeled the developmental crisis occurring during adolescent years as Identity vs. Role Confusion. Formal operational thinking, which develops during adolescence, allows the adolescent to move beyond the concrete present to think about the abstract and possible (Piaget & Inhelder, 1958). During

stressful periods, the adolescent may revert to concrete thinking. If an adolescent uses concrete thinking with regard to sexual activity, the adolescent will not consider either the possibility of pregnancy or the long term consequences of adolescent parenthood (Holt & Johnson, 1995).

It has been suggested that programs which respect the adolescent's rights to time a pregnancy will be more effective than a curriculum that presents only pregnancy prevention (Gordon, 1996). Formal operational thinking allows adolescents to make plans after high school. Adolescents may engage in sexual activity to achieve independence and form an identity. Programs that develop the adolescent's ability to engage in consequence thinking would be useful (Keller et al., 1996). The reasons adolescents choose to engage in sexual activity are varied and complex and are not easily understood, even by the adolescent.

Summary

The current study extends the literature by adding a qualitative component encompassing the adolescent's perspective regarding life goals before and after pregnancy, the meaning the pregnancy has to their family, the challenges they see in being mothers, the strengths they bring to motherhood, and the help they expect to need to raise their child. Previous studies have reported contradictory findings relating to both parent/adolescent communication and parental monitoring as they relate to adolescent sexual activity. This study focuses on these two identified areas specifically as well as parental psychological control, parent/adolescent support, and adolescent locus of control as they relate to pregnant adolescents.

CHAPTER III

METHODS

This study was designed primarily as a qualitative study of the perceptions pregnant adolescents in structured and non-structured educational programs have about their life goals before and after pregnancy, the meaning they perceive their families to attribute to the pregnancy, the challenges adolescents see in being mothers, the strengths adolescents feel that they bring to motherhood, and the help the adolescents expect to need in raising their children. In addition to the qualitative research questions, quantitative data was used to examine whether pregnant adolescents in the two educational programs show differences on perceptions of parent/adolescent communication, perceptions of parental monitoring, perceptions of parent/adolescent support, perceptions of parental psychological control, and adolescent reports of locus of control in two groups of pregnant adolescents.

Research Design

The present study employed a combination of qualitative and quantitative methods to investigate the perceptions of individual and family issues among pregnant adolescents in a structured educational program and those in a non-structured program. Using a qualitative approach, focus groups were used to gain adolescent reports about their life goals before pregnancy, their goals since becoming pregnant, how their families responded to the pregnancy, the strengths the adolescents bring to motherhood, the challenges the adolescents expect as mothers, and the nature of help they anticipate needing in childrearing. Further, quantitative data was collected using self-report questionnaires to evaluate whether adolescents in the two program formats (structured

and non-structured) perceived differences in parent/adolescent communication, parental monitoring, parent/adolescent support, parental psychological control, and locus of control. The qualitative data were analyzed using content analysis and the quantitative data were analyzed using analysis of variance.

Qualitative Design and Methods

Isaac and Michael (1995) define descriptive research as systematically describing the facts and characteristics of a given population of interest factually and accurately. Descriptive research is characterized by the literal nature of the approach. There is no effort made to examine relationships, test hypotheses, or to predict or explain the data. Situations and events are only described; there is no further embellishment made or inference drawn from the data (Isaac & Michael, 1995). Miller (1991) calls this approach observational, adding that all sciences, behavioral and traditional analytic, have observation as a root method. Content analysis is a method of studying and analyzing communications in a systematic, objective, and quantifiable manner to measure variables (Kerlinger, 1986).

The main purpose of this study was to describe adolescent perceptions of life goals before and after pregnancy, the challenges adolescents see in being mothers, strengths adolescents perceive they bring to motherhood, and help adolescents feel they will need in raising their children. Previous studies have not focused on the perceptions of the adolescents themselves; that distinction is what makes the current study different from those conducted previously.

The form of data collection used in the qualitative portion of the current study to obtain information from the adolescents was focus groups. Focus groups provide a rich

and detailed set of data about perceptions, thoughts, feelings, and impressions of group members in their own words (Stewart & Shamdasani, 1990). According to Greenbaum (1998), a full focus group consists of a discussion of 90 to 120 minutes led by a trained facilitator involving eight to 10 participants who are recruited for the session based on their common demographics. A focus group requires a reasonably homogeneous group with persons who are capable of providing high quality discussion of the topic being addressed. Most focus groups are audiotaped to provide a record of the proceedings.

While focus groups may be designed to address different goals, one type of focus groups are attitude studies. Attitude studies collect information about how participants feel about specific topics. One of the purposes of this type of research is to determine participant attitudes toward specific issues so that effective programs can be designed to address these needs (Greenbaum, 1998). This technique was particularly useful in the present study because it allowed for the consideration of attitudes in the structured educational atmosphere and the non-structured environment groups.

Another term for focus group is "group depth interview" (Stewart & Shamdasani, 1990). In this type of interview, the moderator is nondirective and allows the discussion to flow naturally along the lines of interest. Clear articulation of the research questions is necessary prior to the recruitment of subjects and the design of an interview guide. In the present study, the focus was on adolescent perceptions related to the previously stated six content areas (i.e., life goals before and after pregnancy, family's response to the pregnancy, challenges of being an adolescent mother, strengths adolescents bring to parenting, and expected help needed to raise a child). A structured series of six main

research questions and a semistructured list of leading questions were developed prior to the beginning of the data collection (see Appendix A for research instruments).

Quantitative Design and Methods

The quantitative portion of the study utilized a survey design. A survey design is used to examine the relative incidence and relationships among social or psychological variables. Self-report questionnaires represent a type of survey method that allows researchers to utilize reliable and valid scales to assess the nature of psychological or social phenomenon. In the present study, the quantitative portion of the study was used to test the hypotheses regarding possible differences in perceptions of family and individual variables among pregnant adolescents participating in one structured and one non-structured educational program. Specifically, the non-probability sample of pregnant adolescents from two programs in a midwestern city completed the self-report questionnaires (see the Sample section beginning on page 40 for details on sample selection).

Isaac and Michael (1995) state that analysis of variance (ANOVA) is a statistical method where two or more groups from the same population are given a common test (p. 126). This statistical technique answers the question: "Is the difference between two sample means statistically significant?" ANOVA is a single composite test which compares all sample means simultaneously and tells whether or not a statistically significant difference exists somewhere in the data (Isaac & Michael, p. 190). ANOVA is a powerful statistical technique for identifying group differences. The strength of any difference may be determined through the calculation of omega squared (Keppel, 1991).

According to Kerlinger (1986), the purposes of a data analytic study are three:

1. To test hypotheses derived from theory
2. To study the interrelationship of variables and their operations
3. To control variables under research conditions that are uncontaminated by the operation of extraneous variables.

The self-report questionnaire was composed of a standard fact sheet to assess the demographics and existing instruments to assess parent/adolescent communication, parental monitoring, parent/adolescent support, parental psychological control, and adolescent locus of control. The full text of the instruments and the instructions given to the subjects appears in Appendix A.

Parent/Adolescent Communication Scale. Parent/adolescent communication was measured using the Parent/Adolescent Communication Index (Barnes & Olson, 1985). The instrument is a 20-item Likert-type scale which was designed to measure positive and negative aspects of communication between adolescents and their parents. The scale is composed of two subscales: (a) openness in parent/adolescent communication, which measures positive aspects of communication between parents and adolescents and (b) problems in parent/adolescent communication, which concentrates on negative aspects of communication. Sample items include the following: (a)"*I am very satisfied with how my parent and I talk together*" (openness) and (b) "*When talking to my parent, I have a tendency to say things that would be better left unsaid.*" (problems). All items on both subscales use a 5-point response format ranging from 1 (strongly disagree) to 5 (strongly agree). After reversing scores in the problems subscale, items within each subscale are summed to arrive at a composite score. Scores could range from 20-100 for this scale.

The authors report Cronbach's alpha of .87 for the openness in parent/adolescent communication subscale and .78 for the problems in parent/adolescent communication scale. The reported Cronbach's alpha for the overall instrument is .88. The validity of the instrument was supported through factor analysis (Olson, McCubbin, Barnes, Larsen, Murem, & Wilson, 1985).

Parental Monitoring Scale. The parental monitoring scale is a self-report questionnaire originally developed by Small and Kerns (1993). The instrument is a 9-item Likert-type scale designed to measure the degree to which parents know where their adolescents are and what they are doing. Sample items include the following: (a) "*I talk to my parents about the plans I have with my friends*" and (b) "*If I'm going to be home late, I'm expected to call my parents and let them know.*" Response choices range from 0 (never) to 4 (always). Scores could range from 0-36 for this scale, with higher scores indicating perceptions of a higher degree of parental monitoring. The reported Cronbach's alpha for this scale is .87 (Rodgers, 1999). Predictive validity for the instrument was supported through the use of discriminant function coefficients (Small & Luster, 1994).

Parent/Adolescent Support Scale. The parental support scale is a self-report questionnaire originally developed by Armsden and Greenberg (1987) and was adapted from the Inventory of Parent and Peer Attachment. The instrument is a 6-item Likert-type scale designed to measure the adolescent's perception of the relationship with the parent. Sample items include the following: (a) "*My parent respects me and what I have to say*" and (b) "*My parent is fair when it comes to enforcing family rules.*" Response choices range from 0 (never) to 4 (always). Responses were summed to create a

continuous score for the adult identified by the adolescent. Scores could range from 0-24 for this scale. Higher scores indicate a higher level of perceived parental support. Each subject was directed to select one parent to respond to for all questionnaires, and was asked to identify which parent they were responding about on the first page of the questionnaire.

Reported Cronbach's alpha is .93 for mothers and fathers together; .89 for mothers only and .93 for fathers only (Rodgers, 1999). Convergent validity of the instrument was supported through correlation coefficients (Armsden & Greenberg, 1987).

Parental Psychological Control Scale. The parental psychological control scale is a subscale (control through guilt) from the Child's Report of Parent Behavior Inventory originally conducted by Schaefer, 1965. The scale is a 5-item Likert-type scale which assesses the adolescent's perception of their parent's use of guilt as a controlling mechanism. Sample items include the following: (a) "*My parent tells me all the things he/she has done for me*" and (b) "*My parent feels hurt by the things I do.*" Responses range from 0 (like my parent) to 2 (not like my parent) and are reverse scored so that higher scores indicate more psychological control (less autonomy). Lower scores indicate lower psychological control (more autonomous thought and action). Scores could range from 0-10 for this scale. Cronbach's alpha was reported as .83 for mothers and fathers together; .71 for mothers only, and .79 for fathers only. Discriminant validity of the scale was supported through z scores to determine whether the scales discriminated between criterion groups (Schaefer, 1965).

Locus of Control Scale. Locus of control was measured by an abbreviated version of Rotter's (1966) internal/external scale, a forced-choice 11-item scale assessing

whether one attributes rewards to be based upon the individual's behaviors or external forces. Sample items follow: (a) "*Many of the unhappy things in people's lives are due to bad luck" " People's misfortunes result from the mistakes they make.*" Scoring ranges from 0 for an individual who selects all "internal" statements to a score of 11 for an individual who selects all "external" statements. Thus, a higher score reflects a more external locus of control; a lower score reflects a more internal locus of control. Internal consistency reliability, measured by Cronbach's alpha, is .76. The validity of the instrument was supported through factor analysis (Barnett & Lanier, 1995).

Variables

The dependent variable in a study depends entirely on a subject; it is a score or response. In this study, five dependent variables were assessed: parent/adolescent communication, parental monitoring, parent/adolescent support, parental psychological control, and locus of control. All five of these scales have been validated in previous research studies (Rodgers, 1999; Small & Luster, 1994; Schaefer, 1965; Armsden & Greenberg, 1987; Rotter, 1966; Olson et. al., 1985). The scales used a Likert-type format which transformed essentially nominal or ordinal data into interval data (Kerlinger, 1986).

Independent variables are those which are independent of the wishes of the subject. In this study, Group was the independent variable with two levels. Subjects participated in either the structured educational atmosphere or the non-structured environment.

Other independent variables which were assessed include basic demographic data (age, grade in school, ethnicity, whether or not this was the first pregnancy, whether or

not this pregnancy was planned, parents' educational level, living arrangements, gender of siblings, parents' age at time of adolescent's birth, age of baby's father, whether or not the adolescent planned to keep the baby, and estimated due date). Age and educational level were conceived as interval level data; all other data were nominal level.

Sample

The non-probability sample consisted of pregnant adolescents drawn from two sources in a mid-western city with a metropolitan population of approximately 500,000: (a) a structured comprehensive program for school-age mothers offering academics, health education, counseling, and child care services and (b) a non-structured program for pregnant adolescents offered through the city-county health department clinic that involves limited health education and group classes covering normal physiologic and psychologic changes of pregnancy. All adolescents who participated were pregnant at the time of the study.

Subjects who participated in the structured group were self-selected for the program, which is considered an alternative school experience in the public school system for that city. Pregnant adolescents have the choice to remain in their home school district or may elect to transfer into the alternative school program. Subjects must have parental permission to participate in the program; participation is considered voluntary. The non-structured group participants receive prenatal care at no cost to them if they choose to attend the health department clinic. Participation in the non-structured group is also voluntary. Subjects self-select into the health department clinic, but parental permission is not required.

Recruitment of the sample involved the researcher going to the program sites and meeting with the potential participants either during a class period or at a prenatal clinic visits to recruit subjects face-to-face. Contact was made with the director of the structured program, and arrangements were made to visit the adolescents' Life Patterns class, at which time the researcher was allowed to conduct surveys during the normally scheduled class period. Although there are a number of structured program sites, only one was utilized for the present study. Access to the non-structured group was gained by the researcher contacting the nurse who is responsible for the adolescent pregnancy clinic. The non-structured group participants were gathered by the researcher being present at the adolescent obstetrical clinic during the afternoons that the subjects were scheduled for routine check-ups. Each subject was approached individually and asked to participate in the study. There was only one site for the non-structured group. All participants were invited to participate either during a specific class period (for the structured participants) or during a prenatal check-up (for the non-structured participants). The nonrandom sampling method is one threat to the external validity of the study, and may prevent generalizability of the results beyond the study population (Isaac & Michael, 1995).

The sample was purposive to obtain sufficient numbers of pregnant adolescents. The sample was one of convenience in order to maximize numbers of respondents utilizing available research funds. True random sampling was not practical for this project because of the time and expense involved to gain a random sample of pregnant adolescents. A total of 41 participants were obtained for the study; 27 from the structured

group, and 14 from the non-structured group. All 41(100%) of the participants completed the quantitative portion of the study; 26(63%) of the subjects participated in both the quantitative and qualitative portions of the study. Details about the sample are described in Chapter IV and are presented in Table II.

Data Collection and Recording

Participation in the study was strictly voluntary and there was no inducement for participation or non-participation. Sites were identified by the researcher through telephone contact with the director of the structured program and the registered nurse responsible for the adolescent pregnancy clinic at the non-structured program site. Data was collected by giving all participants a copy of the consent form for participation. Subjects who chose to participate were asked to complete the questionnaires used for the quantitative portion of the study. After the quantitative portion of the study was complete, subjects were asked to participate in a focus group that would be audiotaped. Those who agreed went to a small classroom for a focus group session with the interviewer as the qualitative portion of the study.

Subjects who volunteered to participate in the focus group portion of the study were asked a set of questions. Since no names were obtained, subjects can not be linked to any information. The interview was recorded on an audiotape to facilitate accurate recording of responses, and to allow the interviewer to pay attention to non-verbal responses and to direct further questions based on the response to the initial question. The researcher also took notes during the interview regarding non-verbal communication and body language. Subjects were not asked to state their name or to provide any other identifying information. Data was reported only in aggregate form for the two groups.

Since pregnant adolescents in this midwestern state are considered emancipated minors, no parental consent will be required (Health Services for Minors Act, § 63 Ok. Stat. Ann. 63-2602). Oklahoma Statutes Title 63, Section 2601, Chapter 54, "Health Services for Minors" defines self-consent under certain conditions. Pregnant adolescents are protected by the healthcare provider/patient relationship. The researcher is licensed as a Registered Nurse in the State of Oklahoma, and qualified as being able to utilize this research as a part of this document. A copy of the researcher's license is included in Appendix B.

Data was collected by the researcher at the two research sites. Prior to data collection, appropriate Institutional Review Board approvals were obtained from all involved institutions and agencies. The data gathered in this study was confidential and was only reported in aggregate form. All data, including questionnaires, audiotapes, and notes taken during interviews was kept in a secured area with access only by the researcher for the period of data collection and was treated as sensitive and confidential material. After the quantitative data was tabulated and the qualitative data analyzed, the printed documentation was shredded and the audiotapes were degaussed (demagnetized) to obliterate all traces of any recorded signal.

Demographic Information

The demographic questions and the six descriptive (qualitative) questions were researcher developed. Content for the questions was based upon the literature review described in Chapter II. The qualitative questions are meant to elicit responses from pregnant adolescents regarding present and future life goals, the effect of the pregnancy on family members, and strengths and challenges for the pregnant adolescent.

Specifically, the six questions addressed the adolescents' reports of their life goals prior to the pregnancy, how the pregnancy has affected their life goals, what the pregnancy means to their family, the challenges adolescents expect as mothers, the strengths adolescents see they bring to motherhood, and help the adolescents believe they will need in raising their children (see Appendix A).

The six qualitative questions were assessed for face validity by ten adolescents and one section of a junior-level college Adolescent Development class with approximately 15 students in a midwest land-grant university. The wording of the questions was analyzed using the Flesch-Kincaid method for determining both readability and grade level. Readability was computed based on the average number of syllables per word and the average number of words per sentence. Standard writing is approximately equal to the eighth grade level. The highest grade level identified for any of the questions was 8.2 (eighth grade, second month).

The qualitative questions were also assessed for reading ease utilizing the Flesch-Kincaid method. The score for questions was from 57.1 to 66.5, with an average of 61.8 for all items on the interview schedule. Standard writing at the eighth grade level averages approximately 60 to 70. The higher the score, the greater the number of people who can readily understand the document. The determined grade level and reading ease of the research instrument accommodated the ages and academic levels of study participants. Minor changes in wording were made to the interview questions after review by the pilot group of adolescents and university students.

Measurement

Measurement in the present study involved the use of a qualitative focus group protocol and quantitative measures of the demographic variables, as well as the self-report questionnaire items. A summary of the measures used in the present study is presented in Table I.

TABLE I
SUMMARY OF MEASURES

Variable/Concept	Qualitative or Quantitative	Measure	Format	Number of Items	Reliability
Parent-adolescent communication	Quantitative	Parent-Adolescent Communication Scale (Barnes & Olson, 1985)	Likert-type	20	.78-.88
Parental monitoring	Quantitative	Parental Monitoring Scale (Small & Kerns, 1993)	Likert-type	9	.87
Parent-adolescent support	Quantitative	Adaptation of the Inventory of Parent and Peer Attachment (Armsden & Greenberg, 1987)	Likert-type	6	.89-.93
Adolescent locus of control	Quantitative	Rotter's (1996) Internal-External Scale	Forced Choice	11	.76
Parental psychological control	Quantitative	Subscale of the Child's Report of Parent Behavior Inventory (Schaefer, 1965)	Likert-type	5	.71-.83
Meaning of pregnancy to family	Qualitative	Interview protocol	Interview question	1	.96
Life goals before pregnancy	Qualitative	Interview protocol	Interview question	1	.96
Change in life goals after pregnancy	Qualitative	Interview protocol	Interview question	1	.96
Expected challenges as a mother	Qualitative	Interview protocol	Interview question	1	.96

Variable/Concept	Qualitative or Quantitative	Measure	Format	Number of Items	Reliability
Expected strengths as a mother	Qualitative	Interview protocol	Interview question	1	.96
Expected help needed in child rearing	Qualitative	Interview protocol	Interview question	1	.96

Qualitative Data Analysis. Participants were recruited as volunteers from the subjects who completed the quantitative portion of the study. The original consent informed the subjects that they would have the opportunity to volunteer for the qualitative portion of the study. Focus groups were conducted at a mutually acceptable time for all participants. Sessions were held while the subjects were already in the school (structured group) or in the clinic (non-structured group) to decrease travel time and for participant convenience. Fourteen of the 27(52%) Group 1 (structured environment) and twelve of the 14(86%) of Group 2 (non-structured atmosphere) subjects volunteered to complete the focus groups, for a total of 26(63%) of the overall sample (N = 41).

The sessions were approximately 90 minutes in length and were held in classrooms at each facility. The chairs were arranged in a circle around a table; the tape recorder was placed in front of the researcher on the table. There was one group session held at each site; there were 14 participants from the structured group and 12 participants from the non-structured group. The first group was slightly larger than recommended; however, overrecruitment is suggested to ensure a sufficient number of participants (Greenbaum, 1998). If the groups had been divided into smaller subgroups, a concern is that the groups may have been too small to generate useful information.

The participants from Group 1 (structured educational atmosphere) were familiar with each other and no introductions were necessary; in Group 2 (non-structured environment), each participant stated her due date and whether it was her first pregnancy before the session started. The Group 1 (structured) interview was conducted in the late morning; the Group 2 (non-structured) interview was conducted mid-afternoon. The six main questions were asked to the group and each participant was given the opportunity to answer or give an opinion on the question. Participation was encouraged by the researcher, but subjects were free not to answer the questions if they so chose. Leading (or probe) questions were directed to the subjects as appropriate.

After the focus groups were complete, the information obtained from the audiotape was transcribed by the researcher. The sections of the transcripts pertinent to the research questions were color coded and a system for classifying the responses by question was identified (Stewart & Shamdasani, 1990). The unit of analysis for coding material was usually a word or phrase, but occasionally was an entire sentence. The coded material was then sorted by question and separated further into Group 1 or Group 2 onto a single sheet of paper for each question. This sorted material provided the basis for a summary report for each question which is included in Chapter IV. Obtained information that was not directly related to a research question was not included as part of the qualitative analysis. Rater reliability is a concern when coding results. In order to establish reliability in coding, one of the interview sessions was coded by a second coder, who was an obstetrical office nurse. A ratio of agreements to disagreements (coefficient of agreement) was calculated, resulting in intercoder reliability of .96.

Quantitative Data Analysis. Analysis of variance (ANOVA) was conducted for each dependent variable to determine if Group 1 (structured educational atmosphere) differed from Group 2 (non-structured environment). In each of these five analyses, group was the independent variable, with two levels (structured and non-structured). The scales (parent/adolescent communication, parental monitoring, parent/adolescent support, parental psychological control, and adolescent locus of control) served as dependent measures. The strength of any group difference was assessed through the use of an omega squared value. The qualitative responses were analyzed using themes, content analysis, and frequency distributions.

Research Questions

Qualitative factors which related to adolescent pregnancy and life goals were explored. These factors included the following: life goals before becoming pregnant, how pregnancy has affected these life goals, what the pregnancy means to the adolescent's family, what challenges face the adolescent mother, strengths the adolescent brings to motherhood, and kind of help the adolescent thinks she will need in raising her child.

Group difference questions relevant to parent/adolescent communication, parental monitoring behaviors, parent/adolescent support, parental psychological control, and adolescent locus of control were of interest. Demographic factors related to adolescent sexuality were also identified. Specific demographic factors pertinent to this study were the following: age of the adolescent, highest grade completed in school, ethnic background, number of pregnancy, whether the pregnancy was planned, whether any birth control methods were used, highest educational level of adolescent's mother and

father, who the adolescent lives with most of the time, whether or not the adolescent has siblings and the gender of those siblings, age of adolescent's mother and father at the time of the adolescent's birth, age of the father of the baby, and whether or not the adolescent planned to keep the baby after it was born.

Specific, *a priori,* theory-driven questions were developed to guide the research effort. These questions were as follows:

1. What were the adolescent's life goals before the pregnancy?
2. What are the adolescent's life goals since becoming pregnant?
3. How do adolescents perceive their family's response to the pregnancy?
4. What strengths do pregnant adolescents perceive they will bring to motherhood?
5. What challenges do pregnant adolescents think they will face as mothers?
6. What kind of help do pregnant adolescents expect to need in childrearing?
7. Is there a difference in parent/adolescent communication patterns between pregnant adolescents who participate in a structured educational atmosphere and pregnant adolescents who participate in a non-structured environment?
8. Are perceptions of parental monitoring behaviors the same for pregnant adolescents who participate in a structured educational atmosphere as for those who participate in a non-structured environment?
9. Do pregnant adolescents who participate in a structured educational atmosphere perceive the same levels of parent/adolescent support as pregnant adolescents who participate in a non-structured environment?

10. Are the perceptions of parental psychological control consistent for both pregnant adolescents who participate in a structured educational atmosphere as well as those who participate in a non-structured environment?
11. Is there a difference with respect to reported locus of control between pregnant adolescents who participate in a structured educational atmosphere and those who participate in a non-structured environment?

Questions 1-6 were addressed with qualitative methods. Questions 7-11 were addressed using quantitative methods. Stated in the null form, hypotheses to be tested for questions 7-11 were as follows:

1. Pregnant adolescents who participate in a structured educational atmosphere and those who participate in a non-structured environment do not differ in parent/adolescent communication patterns.
2. Perceived parental monitoring behaviors among pregnant adolescents who participate in a structured educational atmosphere and those who participate in a non-structured environment are the same.
3. Pregnant adolescents who participate in a structured educational atmosphere and those who participate in a non-structured environment perceive the same level of parent/adolescent support.
4. Perception of parental psychological control is consistent for pregnant adolescents who participate in a structured educational atmosphere and for those who participate in a non-structured environment.

5. Pregnant adolescents who participate in a structured educational atmosphere and pregnant adolescents who participate in a non-structured environment do not differ with respect to reported locus of control.

Methodological Assumptions and Limitations

Several assumptions were made pertaining to this study. These included the following:

1. Subjects will answer all questions honestly.
2. Subjects will answer all questions to the best of their cognitive ability.
3. Adolescent reports of perceptions of family and individual factors are important.
4. Subjects will self-select for the qualitative portion of the study.
5. Programs used in this study represent structured and non-structured educational offerings.
6. The use of a convenience sample limits the generalizability of the study results.
7. The relatively small sample size also limits the utility in predicting outcomes in other populations.

Three assumptions are key to the use of ANOVA. These assumptions are as follows:

1. independence - assume that population scores are unrelated and independent of each other,
2. normality - scores in the population are normally distributed,

3. equal variance (homogeneity of variance) – population variances in the groups are relatively the same.

These three assumptions were supported by the following methods:

1. independence – all subjects were directed to complete their questionnaires without discussing the information with other participants.
2. normality – each group had greater than 12 subjects (Keppel, 1991).
3. homogeneity of variance- an F max value was calculated to determine equal variance (Pearson & Hartley, 1958).

Summary

This study utilized qualitative and quantitative methods to investigate how a purposive, non-randomized sample of pregnant adolescents in two programs (structured and non-structured) perceived family and individual issues. The qualitative portion of the study used focus groups at the two research sites (the structured program site and the non-structured program site). The participants were asked about their perceptions of the meaning of the pregnancy for their life plans, the responses of their families, the strengths and challenges of parenting, and the anticipated support they would need in parenting. The results were taped, transcribed, and examined using content analysis.

The quantitative portion of the study involved having the participants respond to five previously established self-report scales. Separate analyses of variance were conducted to determine if there was a difference between the two groups (structured and non-structured) with respect to five dependent variables: parent/adolescent communication, parental monitoring, parent/adolescent support, parental psychological control, and locus of control.

Subjects benefitted from this study by having an opportunity to discuss family and individual issues with other pregnant adolescents. In addition, the results from this study have implications for parenting programs. Another potential benefit is that factors which adolescents see as important while pregnant were described and can be used in preventive programs related to this population.

CHAPTER IV

RESULTS

Overview

Two research methods were utilized in this purposive, non-randomized study of pregnant adolescents: qualitative (focus groups) and quantitative (ANOVA). Subjects participated in one of two educational programs (structured or non-structured) and were asked to report on their perceptions of family and individual issues. Those subjects who chose to participate in the qualitative portion of the study were asked about their life goals before and after pregnancy, their family's response to the pregnancy, the strengths and challenges of being an adolescent mother, and the help they would need to raise their child.

Study Results

Demographic Characteristics of the Participants. A set of questions relating to concepts previously identified in the literature as being appropriate to a discussion of adolescent risk-taking behaviors and adolescent pregnancy was developed (Appendix A). The results from the demographic questions are presented in the following table (Table II):

TABLE II

DEMOGRAPHIC CHARACTERISTICS OF THE PARTICIPANTS

Variable	Structured Group 1 (N=27)	Non-Structured Group 2 (N=14)	Overall Sample (N=41)
Age			
Range	14-20	14-20	14-20
Mean	16.6	16.4	16.6
SD	1.3	1.6	1.5
Grade			
Range	8-11	9-12	8-12
Mean	9.5	10.5	10.0
SD	1.0	.83	1.18
Ethnicity			
Caucasian/White	12(41%)	12(86%)	24(59%)
African American/Black	11(41%)	1(7%)	12(29%)
Native American	2(7%)	1(7%)	3(7%)
Hispanic	2(7%)	0(0%)	2(5%)
First Pregnancy			
Yes	23(85%)	14(100)	37(90%)
No	4(15%)	0(0%)	4(10%)
Planned Pregnancy			
Yes	4((15%)	1(7%)	5(12%)
No	23(85%)	13(93%)	36(88%)
Birth Control			
Yes	6(22%)	5(36%)	11(27%)
No	21(78%)	9(64%)	30(73%)
Educational Level of Mother			
No high school	1(4%)	0(0%)	1(2%)
High school/No diploma	8(30%)	0(0%)	8(20%)
High school graduate	10(37%)	6(43%)	16(39%)
Some College	3(11%)	3(21%)	6(15%)
College degree	5(19%)	5(36%)	10(24%)
Educational Level of Father			
No high school	4(15%)	0(0%)	4(10%)
High school/No diploma	7(26%)	1(7%)	8(20%)
High school graduate	9(33%)	5(36%)	14(34%)
Some College	2(7%)	2(14%)	4(10%)
College degree	5(19%)	6(43%)	11(27%)
Live With			
Mom & Dad	4(15%)	11(79%)	15(37%)
Mom	13(48%)	1(7%)	14(34%)
Dad	3(11%)	0(0%)	3(7%)
Mom & Stepdad	2(7%)	1(7%)	3(7%)
Baby's Father	2(7%)	0(0%)	2(5%)
Other	3(11%)	1(7%)	3(7%)

Variable	Structured Group 1 (N=27)	Non-Structured Group 2 (N=14)	Overall Sample (N=41)
Sisters			
Yes	20(74%)	9(64%)	29(71%)
No	7(26%)	5(36%)	12(29%)
Brothers			
Yes	25(93%)	11(79%)	36(88%)
No	2(7%)	3(21%)	5(12%)
Age of Adolescent's Mother at Time of Birth			
Range	14-39	18-39	14-39
Mean	23.6	25.5	24.1
SD	6.2	6.3	6.3
Age of Adolescent's Father at Time of Birth			
Range	18-39	18-38	18-39
Mean	26.6	26.8	27.8
SD	6.2	6.3	6.6
Age of Baby's Father			
Range	16-26	15-32	15-32
Mean	19.9	20.2	20.6
SD	2.6	4.2	3.5
Keep Baby			
Yes	26(96%)	11(79%)	37(90%)
No	1(4%)	3(21%)	4(10%)

The subjects ranged in age from 14 to 20 years, with the modal age being 16. The highest grade completed in school ranged from 8th grade to senior year in high school, with the bimodal grade in school being freshman (29%) and juniors (31%). This supports previous research findings stating that 9th and 11th grade levels of sexual activity are most alike during high school (Weinbender & Rossignol, 1996). Further, 59% of the study identified themselves as Caucasian/White; 29% were African American/Black; 5% were Hispanic, and 7% were Native American. Out of the 41 subjects, three had been pregnant before (7%), twelve percent of the subjects had planned this pregnancy, and

27% used birth control. The birth control methods utilized were condom (91%) and oral contraceptives (9%).

Mother's educational level ranged from no high school (2%) to college degree (29%). Father's educational level ranged from no high school (11%) to college degree (29%). The subjects reported living with their mother and father (39%) or mother (37%) most of the time. Seventy-three percent of the subjects have sisters; 85% of the subjects have brothers. Age of mother at time of subject's birth ranged from 15 to 39, with a modal age of 20. Age of father at time of subject's birth ranged from 18 to 39, with a modal age of 23. The age of the baby's father ranged from 15 to 32, with bimodal ages of 17 and 18. Five subjects (10%) planned to give their babies up for adoption; 90% of the subjects (36) planned to keep their infants.

Qualitative Results. According to Isaac and Michael (1995), many experimental studies create artificial research conditions that are not practical in relation to ongoing education. Such research violates the natural context of the real classroom in which activities are normally conducted. Therefore, a combination of quantitative and naturalistic (or qualitative) methods is suggested. Most studies involving adolescents utilize quantitative methods almost exclusively. The multifaceted reasons for an adolescent's engagement in risk-taking behaviors suggest that a combination of both qualitative and quantitative methods would be useful. Qualitative methods reflect the role of subjective judgement in generating data. Common themes are sought and interpreted from gathered data. Since this study involved the researcher entering either a classroom or clinic setting, the use of qualitative in addition to quantitative data was determined to be appropriate.

Procedure. Subjects who participated in the quantitative portion of the study were asked to volunteer for the qualitative portion of the study. Of the two groups utilized, the following was the participation by group: Group 1 (structured educational atmosphere) had a total of 27 subjects; 14 subjects volunteered for the focus group, for a total of 51.58% participation from Group 1. Group 2 (non-structured environment) had a total of 14 subjects; 12 of those volunteered to participate in the focus group, for a total of 85.71% participation from Group 2. The total number of subjects in the current study was 41; of those, 26 volunteered for the focus groups, for a total of 63.41% participation for the total study.

Subjects who volunteered were asked to answer a series of six questions. The focus groups were audiotaped and the researcher took notes during the session. The focus groups averaged one hour in length, and were transcribed and coded by the researcher. In order to establish reliability in coding, one of the focus group sessions was coded by a second person. A ratio of agreements to disagreements was calculated, resulting in intercoder reliability of .96.

Focus Groups. Focus groups were conducted with subjects who volunteered to participate in the qualitative portion of the study. Please refer to Appendix A for the full set of questions used for the qualitative portion of the study. Because subjects could self-select out of the qualitative portion of the study, there could be an impact on the overall study, since the groups are not the same. Isaac and Michael (1995) refer to this condition, the differential loss of subjects during the study (mortality) as a threat to the internal validity of the study design.

Focus groups were chosen to decrease the self-consciousness of an adolescent being interviewed by an adult one-on-one. This strategy was suggested as a result of the pilot group who felt too intimidated to meet individually with the researcher, but would agree to a group interview Although the original set of questions was structured, probe questions were utilized to elicit more specific responses in certain areas. Appendix C includes the complete transcripts from both focus groups.

Life Goals. The first question in the qualitative portion of the study asked the subjects, "What were your goals in life before you became pregnant?" Previous studies discussed that adolescents with a life plan may be less likely to engage in risk-taking behaviors (Perkins et al., 1998; O'Donnell et al., 1999). This researcher was interested in whether adolescents who were pregnant had a life plan. The majority of the respondents (77%) discussed plans to finish high school and go on to college. Group 1 (structured educational atmosphere) had 86% who responded that they planned to go to college. The subjects who did not have college plans had originally considered other life directions. Those plans included becoming an artist, finishing high school, and getting a job. Two of the subjects with college plans mentioned wanting to become a pediatrician and "work with kids." Subjects discussed rearranging the order of their plans. A 17 year old sophomore with one child stated:

> "I think I want to be a pediatrician, too. Isn't that a doctor who takes care of kids? I just know that I want to go to school and graduate. I really wanted to have a family after I had finished school, but I guess that isn't going to happen the way I planned it now."

Other subjects discussed waiting a year or two and then continuing on with original plans. Several of the subjects were beginning to realize the added responsibility a baby would bring to their lives. One subject, a 16 year old with an 8 month old child, offered this insight:

> "I wanted to graduate high school and then go to the Navy so I could get money for college. I don't know if I can get someone to keep my baby so that I could go to the Navy. I guess I don't want to do that any more since I don't want to spend that much time away from my baby."

Two subjects mentioned that they had hoped to be able to finish their high school years with their friends at their regular school instead of graduating from the alternative school program.

Group 2 (non-structured environment) had 66% who responded that they had college plans. This group had less well-defined goals than did the structured educational atmosphere group. Subjects had global, rather than specific plans, as evidenced by this comment from a high school sophomore:

> "I want to finish college. I really hadn't planned what to study yet. I just know I wanted a college degree."

Several of the subjects in Group 2 discussed wanting to get a "good job." Three of the subjects did not discuss plans after high school, but stated that completing high school was an important goal for them. Two of the subjects listed their plans in order: to go to college, get married and have a family, and to have a good job. No mention was made of either re-ordering these priorities or changing these goals by either subject.

The range of realism in plans for continuing toward their goals varied from subject to subject. Some participants had given definite thought to how their life goals would change with the addition of a baby, and some had not specifically considered what impact the baby would have on their life. Some subjects had modified their original plans by allowing themselves extra time to complete their goals; no one mentioned abandoning their previously identified life plans completely. Putting plans on hold while the baby was young and then continuing on with the original plan was included in some responses. The following statement is from a 16 year old high school freshman:

> "I want to graduate from high school and go on to college. I am a cheerleader and soccer player right now, and I wanted to continue on with that. I think I will be able to until I get real far along and real big. After I have the baby, I want to still play soccer and be a cheerleader, and I would like to be a college cheerleader."

Although none of the subjects identified goals that could not be achieved after a pregnancy, some had not given specific thought to how to accomplish these plans with a child.

The difference in the groups' responses may be related to the educational atmosphere provided to Group 1 subjects. Participation in high school completion classes at the structured program may reflect on the response to this question.

There were similarities among the two groups in the following areas: both groups had definite life goals before becoming pregnant. The majority of the adolescents planned to attend college and pursue a specific degree plan. Both groups felt that being pregnant would have little effect on their life goals other than delaying them somewhat.

All subjects who participated in the qualitative portion of the study had a life plan, which does not support previously documented findings. This result may be explained by the cognitive development of an adolescent which does not allow the ability to look at long range consequences of behavior. The adolescent focuses more on the "here and now" and considers situations and events as they relate directly to them. This presence of a life plan in all subjects could also be a result of society's greater acceptance of single parenthood; the adolescents may be responding appropriately based on their expectations of societal response.

Pregnancy Affect on Life Goals. The second question related directly to the first in the qualitative portion of the study. The question was, "How has pregnancy affected your life goals?" Since all subjects had life goals, the researcher was interested in whether the adolescent perceived any effect from the pregnancy on previous life plans.

In Group 1 (structured educational atmosphere), 36% of subjects said that pregnancy had not affected their goals and 21% of subjects stated that their plans had been put off by the pregnancy. This group discussed having to work "longer and harder" to achieve their goals. The following comment was made by an 18 year old in her second trimester of pregnancy:

> "Being pregnant has made me strive even harder to get my goals done. Like instead of getting a GED, I came back to school to graduate and get my diploma. That was important to me, not getting a GED. I really wanted to get my diploma like everyone else."

Subjects discussed having someone else to think of besides just themselves and the effect this might have on their goals. Some of the subjects appeared to become more realistic as the focus group discussion progressed, as evidenced by this statement:

> "I think now that I probably won't be a cheerleader in college because of the baby and all. Some of my plans have changed, but not all of them. I do still plan to go to college, I just won't be a cheerleader."

Subjects began to identify resources they felt would be needed during and after their pregnancy. The immediate need was for financial help for college costs and child care. The subjects often started with a short term focus and became more long range oriented as the group discussion progressed.

Some participants described that they felt their plans needed to change, but were unable to state specifically what might need to change. There was some mention of giving up one part of the plan but continuing with other portions. One subject mentioned her physical health interfering with her ability to complete her schoolwork. She also mentioned concern over the reactions and judgments people would make about an adolescent mother:

> "I am sick a lot now, and that kind of changes the way I feel about everything. I feel different because I am young and pregnant and I think people make lots of judgements about me, like, I'm a slut. Or like I should have known how to keep from getting pregnant."

Statements like this one validate the need for structured educational programs such as these which allow adolescents to be in a supportive environment during their pregnancy.

In Group 2 (non-structured environment), 58% of the respondents said that pregnancy had delayed or put their plans "on hold"; this group was also more likely to respond with a statement about goals having to wait until arrangements for the baby were completed. This group seemed to have a less concrete idea of what would be required for them to achieve their goals. The following comment was made by a 16 year old junior in the fifth month of her pregnancy:

> "My father will not pay for college now that I am pregnant. He says that I have to find a way to do it myself. I have thought about that, but I haven't figured anything out yet."

Two of the subjects discussed waiting for the baby to get here and seeing "how everything works out" before deciding further about life plans. One subject discussed having to start a family a lot sooner than she expected. The non-structured environment group seemed more likely to respond that their plans would be delayed or put on hold. As in Group 1, there was one subject who mentioned the physical changes she was experiencing:

> "Being pregnant has affected my grades. I don't feel well, so I rest a lot and am behind in my school work. I keep telling myself, my friends will have higher GPAs, but I get to have a baby!"

The last part of the subject's statement sounded like an acceptance of a trade-off: having a baby vs. academic achievement.

Both groups seemed not to understand exactly in what way a baby would change their life goals. Although some of the subjects were beginning to imagine what kinds of resources and modifications would be required, no one was able to concretely say what

types of changes would occur after the baby arrived. Most subjects identified that they would have "to work harder." When asked in what ways they felt they would need to work harder, responses focused primarily on child care arrangements.

An interesting finding was that neither group of adolescents viewed that becoming a parent would change their life goals significantly. Although from a cognitive stage theory (Piaget, 1958), some adolescents have the ability to consider the future and various possibilities, these adolescent mothers chose to view a baby as something to incorporate into their current lifestyle. Perhaps what the adolescents were reflecting was egocentrism -- the tendency to perceive and interpret the world in terms of the self. Alternatively, this thought of simply adding the baby into their life could be viewed as very realistic.

Perhaps the most poignant example of how an adolescent has adapted to the change in life goals since becoming pregnant came from a 20 year old high school senior -- the only subject from Group 1 (structured educational atmosphere) who planned to give her baby up for adoption. The baby was due in one month at the time of the study, and the adolescent reported that she was living with a "host mother" who would adopt her baby after it was born. The following are her comments about changes in her life plans:

> "My own Mom and I weren't getting along so well. When my Mom found out that I was pregnant, she said the baby would ruin my life and wanted me to have an abortion. I knew I wanted to have the baby. I wanted the baby to have a good life and I wanted to go on with my life. So, I found a church-sponsored adoption agency and got to choose the parents for my child. I have been living with my host family for about three months. After I have the baby, I will live with them

> for a couple of more months, and then I will move back home with my Mom and Dad. In the fall, I will go to college like I planned. I can see my baby whenever I want and I know adoption is the right thing for me and for the baby. I couldn't see any reason to ruin two lives just because I got pregnant."

The researcher had many other questions for this subject; however, after making these comments, the subject left the focus group session. Although this adolescent appears to have made a mature, thoughtful decision, questions exist about the nuclear family's reaction when the adolescent returns home to live. The level of family support is critical to the outcome of an adolescent pregnancy and varies widely with each subject. The literature supports that the most critical support for a pregnant adolescent is her own mother.

Meaning of Pregnancy to Family. The third qualitative question focused on the meaning the adolescent's pregnancy had on family members. In Group 1 (structured educational atmosphere), 50% of the subjects reported family responses as "mad," "shocked and disappointed," and "ashamed." Twenty-nine percent reported that their family members are "happy" and "love the baby." A large majority (64%) reported ambivalent family feelings typified by this response:

> "Some of my family thinks I have messed up my chances for success. Others believe I'll do better now because I have a reason."

Some subjects reported the family's response as positive. One 17 year old who had already had her baby had a response which demonstrated that her family was sensitive to their daughter's state of mind:

"They were shocked and disappointed, but they were always there for me. I think they knew that it was hard for me, so they tried not to freak out about it too much."

Another subject stated that the family realizes that their daughter is becoming more mature and responsible. Another family was initially disappointed, but recognized their daughter's strengths.

Not all family responses were positive. The following quote is from an adolescent who has already had her baby and is an example of both ambivalence and control issues:

"It has changed the way my family sees me. They love her a lot, but everything has changed with me and my family. Sometimes me and my Mom argue about how to take care of the baby. She has her ways, and I have mine. It is hard sometimes because me and my Mom fight about how things need to be done and I think she's my baby, not yours. My family doesn't think I am old enough to be making decisions about how to raise my baby."

Statements such as this one reinforce the need for families to be aware of and negotiate parent/grandparent boundaries both prior to and after the baby's birth.

One subject who was 16 years old and had an 8 month old son offered these statements regarding her family's reaction to the pregnancy:

"On my side of the family, there was really nothing, no reaction. My brothers loved my son after he was born, and my Mom hasn't seen him since he was four months old. He's eight months old now. On his father's side, he's loved and

adored. I live with the father of the baby and his family, so I guess what my family thinks really doesn't matter."

Still others expressed the stress caused by the burden of another family member to care for. The following statement was made by a 14 year old whose baby was three months old:

"My family just thinks that it is more food for them to buy. They weren't really excited about having another member of the family."

Group 2 also discussed initial family reactions of disappointment and shame. The difference is that these families do not demonstrate the eventual acceptance of the pregnancy as the first group did. Additionally, no strengths were identified in the daughters. Two subjects reported that their mothers expected them to know how to prevent pregnancy. Four subjects reported that the pregnancy is not discussed at home; two subjects describe strained relationships among family members.

Ambivalence and changing family reactions were noted by subjects, as evidenced by this comment from a 17 year old junior whose baby was due within two weeks:

"This has been pretty much of a crisis for my family. At first, we talked about whether or not to keep the baby, but I didn't want to give it up, so they let me keep it. Now, it seems like they don't think that's such a good idea."

Both groups discussed family disappointment as a reaction to the pregnancy, with Group 1 participants expressing more positive family responses than Group 2 participants. Many families accepted the pregnancy after an initial response of anger or shame. Almost all subjects stated that their family members went through a variety of responses before arriving at the current levels of support.

Group 2 (non-structured environment) responses were decidedly more negative than Group 1, with 92% of the subjects reporting their family responses as "shameful," "crisis," and "embarrassed." One subject reported that "my father is no longer speaking to me" and another stated that "it has put a strain on my family because their 'sweet girl' is not so sweet any more." Twenty-five percent of the respondents in Group 2 reported contradictory family feelings similar to those stated previously by Group 1 subjects.

The two groups' reports illustrate the diversity of responses to an adolescent pregnancy in the family. The adolescents' perception of family responses reflects the multiple processes of adjusting to and accepting unexpected family changes. It appears that most families respond initially with anger and disappointment which over time turns to acceptance and, in some cases, recognition of the adolescent's strengths. Validation of these family reactions could be tested in future studies. Programs addressing the needs of the adolescent mother and her family could incorporate this knowledge of the families' response into class curriculum. A visit from an adolescent mother and her family who have successfully negotiated these challenges would be particularly beneficial to others who were about to enter the same experience.

Challenges of an Adolescent Mother. Question four of the qualitative portion of the study asked the subjects to identify the challenges they face as an adolescent mother. Money was identified as a concern by 46% of the respondents; raising a child was mentioned by 42% of the subjects. A concern raised by 19% of the adolescents was not being able to spend as much time with their friends as they had previously. This supports previous research regarding the importance of the role of peers in an adolescent's life.

Group 1 (structured educational atmosphere) subjects discussed decreased interaction with friends and fewer attempts by friends to be included in activities. One subject mentioned having to give up cheerleading and the friends associated with that activity. Several of the adolescents seemed to be thinking responsibly about the future of the child, as evidenced by these comments made by a 14 and 16 year old, respectively:

> "I have to be careful now not just to hang out and do drugs. It is really important for me to pick good friends and finish high school. Before, it didn't really matter so much if I did those things, because it was just me to think about. Now I have to think about the baby too."

> "Getting jobs and being a single mother are challenges. Resisting teen pressures, like when your friends want to drink or do drugs are challenges, too. You might think you want to, but then you think, oh yeah, I have a baby to think about."

Financial concerns were mentioned by the majority of subjects in this group. Although finances were mentioned, the subjects didn't have clear ideas about how to meet these needs. One subject suggested welfare as a remedy for her financial situation. Several subjects expressed concern regarding their ability to balance the responsibilities of school, work, and parenting. One 16 year old in her second trimester discussed the responsibility of being pregnant forcing her to grow up fast. Her statement shows how she feels separated from her friends:

> "I go through physical and mental changes and phases. Like, I feel like I want to cry sometimes. And my head is not in the same place as my friends' any more. I have a lot of other things to think about besides what to wear or where to shop or who to meet or go out with."

Some of the subjects were concerned about the child's well-being and safety. When questioned about providing a safe environment for her child, one 14 year old subject responded:

> "I have to find a job at my age. I have to worry about somebody else besides me. Like those shows you see on TV. You can leave your baby with somebody and they can be real mean to them. How do you know that the people you leave them with will be good to them?"

Many of the respondents listed more than one challenge. The following is an example of a typical response:

> "The challenges I have is going to school even if she [the baby] is sick and having money for what my child needs and wants. I wonder if I will be able to get everything I need done with my child. I worry about being responsible."

Group 2 (non-structured environment) also discussed financial concerns and balancing work, school, and being a mother. Several of the subjects expressed concern about their inability to qualify for anything other than a minimum wage job.

This group expressed more concerns about actual childrearing than did the first group. The following statements illustrate the subjects' concerns regarding their parenting capabilities. The first comment is from a 16 year old whose baby is less than a month old:

> "I know I am not ready to be a mom, and that makes me scared."

The second statement is from a 15 year old expecting her first child in three months:

> "Being responsible for someone else is really weird. My parents say I can't even take care of myself, so how can I take care of a baby? I don't like it that I can't be

with my friends as much as I used to. Taking care of someone else seems like it will be a lot of work."

The third response is from a senior in high school expecting her first child in two months:

"People keep saying that I will be a child raising a child. I think that might make us really close. Finishing school is going to be hard. I already have days when I don't want to go because I don't feel good or I am tired of having people stare at me and talk about me at school."

Group 2 also listed some specific fears. One subject, a 16 year old sophomore, discussed her fear of childrearing:

"Trying to raise a baby by myself scares me. I don't think my family will help out much, and the baby's daddy isn't really interested. I think it's all going to be up to me."

Another subject, a 16 year old who is in her third trimester, feared labor and her response to the event:

"I am afraid of labor. I don't like to hurt and I don't know what to expect. I thought about going to some of those classes to get you ready, but those are for adults and I would feel stupid being the only kid there. I think people would look at me and wonder, 'Why is **she** here?'"

Programs for pregnant adolescents could incorporate these comments into planning useful, appropriate education for these clients. Visits from adolescent mothers who have already delivered could offer necessary support and encouragement.

Both groups mentioned concerns about decreased time to spend with friends and wondered whether they were ready to parent. Several subjects expressed feelings of

genuine caring and concern for their child. Subjects were sincerely worried about financial issues, but had no concrete methods or plans for meeting these real needs. One subject hoped that her family would figure it out for her, and one was ready to accept public assistance. Overall, the groups seemed fairly realistic about the challenges they face, but have no firm plans for how to meet these obstacles.

Adolescent Strengths in Motherhood. Subjects were asked, "What strengths do you bring to motherhood?" This question generated the most questions from the subjects for clarification and required more probing for answers than did any of the other qualitative questions. Respondents were unsure of their strengths in general and were even less confident regarding their strengths in relation to their ability to parent. The word "strength" required definition for both groups. The subjects could think of some strengths when they were given examples, but did not readily identify any strengths when first questioned.

Group 1 (structured educational atmosphere) most often identified their love of children, patience, and willingness to learn as strengths. They also identified being a good listener and being reasonable as attributes. Past experience helping raise younger siblings and babysitting was also seen as beneficial. One subject, who already has a toddler, was forthcoming in describing her strengths and responsibilities:

> "I love my little boy. I think raising him in church, baking cookies, reading stories, playing games, and being supportive are strengths. Also, ensuring good morals and a good value system are important. I am also very considerate."

Group 2 (non-structured environment) had three subjects who were unable to identify any strengths, even after encouragement by the researcher. One 16 year old's response was particularly poignant:

"I don't know. It seems like right now, I'm not good at anything."

Others in the group identified their capacity to love and patience as their strongest points. One subject who is a high school senior realized the presence of a strong role model in her life:

"My mom is a good mom, so I think I will be, too."

Group 1 was more likely to answer that patience was their strength; Group 2 was more likely to respond that the capacity to love was an asset. Love for the child was a response for 38% of the subjects; patience was identified by 27% of the adolescents. Several respondents from Group 1 (structured educational environment) believed that they are "willing to learn" to care for their child. One respondent listed her strength as, "My heart. I will love God's gift to me."

The similarities in the groups focus around the initial inability to identify any strength. Programs which focus on adolescents could benefit from this information and present information to help adolescents identify and recognize their contributions. The subjects' willingness to learn how to take care of their children makes a case for inclusion of childrearing skills in programs for adolescent mothers. Validation of identified strengths could be made by those interacting with these clients and should be shared when observed. Recognition and reinforcement of positive parenting behaviors and interpersonal communication skills could positively impact the self-esteem of these young mothers.

Help to Raise Child. The last of the qualitative questions asked the adolescents what kind of help they thought they would need in raising their child. Group 1 (structured educational atmosphere) identified financial and emotional support as being important to them. A 14 year old, expecting her first child in approximately 6 months, listed the following kinds of help she needed:

> "My mother; my baby's daddy; my boyfriend. I will need help from all of them to keep me strong."

A 15 year old, due in approximately 12 weeks, stated that she will need money. When asked where she would get the financial help she needed, she stated:

> "I have thought about getting a job, but I don't think I will make much money at it. I guess my family will have to help me out. I don't think they will be too happy about that."

A number of subjects mentioned needing the baby's father to stay involved. Some subjects were vague about exactly what kind of help would be needed, while others listed specific items such as diapers and milk. Many subjects mentioned that their family is supportive, but some were concerned about how much help they would receive from their family members once the baby arrived.

Group 2 (non-structured environment) subjects had many of the same concerns as did the first group. Emotional support and money were identified by nearly all of the subjects in this group. The responses seemed to be short-sighted; after identifying a need for money, for example, no specific plan for how to obtain the needed assistance was articulated. One subject appeared to be willing to take help from any avenue, as evidenced by her comment:

"I guess I will need money from anyone who will give it to me."

Subjects in both groups identified money as the kind of help they will need to raise their child. Group 1 participants were more likely to include family as necessary additional help. More than half (54%) of the respondents identified financial support as a need; 69% stated that some sort of emotional support would be necessary. Both groups identified the same two broad needs: money and support. Sources of support identified were the mother's family, the baby's father, and the baby's father's family. Programs which deal with adolescent parenting need to include the father of the baby and both expectant families. Programs which include the father are becoming more common, but programs including the families of the adolescent's parents are rare. Identifying the extent to which the families are willing to help the adolescent parents would be one important facet to discover. Families who are willing to help could be given specific ideas for assistance; for those families not willing or unable to help, referrals could be made so the pregnant adolescent could receive assistance from programs already in place. One statement by a subject who already has a toddler summed up the overwhelming sense of responsibility she felt:

> "My boyfriend helps me tremendously. I have the support of my family, but babysitters are always needed. I always need more time and money and energy!"

Quantitative Results. A single factor one-way ANOVA test was performed to determine if there was a difference between Group 1 (structured educational atmosphere) and Group 2 (non-structured environment) on each of five identified dependent variables: parent/adolescent communication, parental monitoring, parent/adolescent support, parental psychological control, and adolescent locus of control. The null (statistical)

hypotheses state that there will be no difference between Group 1 and Group 2 on each of the five identified dependent variables. The alternate (research) hypotheses state that there is a difference between Group 1 and Group 2 on the five identified dependent variables. In statistical form, the null and research hypotheses are as follows:

Null: all $\propto i = 0$ for all i

Alt: not all $\propto i = 0$ for all i

Each hypothesis was tested by comparing the group means for each dependent variable.

The ranges, mean scores, and standard deviations for the five dependent variables by group are listed in Table III.

TABLE III

RANGES, MEAN SCORES, AND STANDARD DEVIATIONS FOR DEPENDENT VARIABLES BY GROUP

Dependent Variables

Overall N = 41	Parent / Adolescent Communication	Monitoring	Parent / Adolescent Support	Parental Psychological Control	Locus of Control
Group 1 N=27	Range = 47-100 Mean = 71.96 SD = 14.24	Range = 16-45 Mean = 27.19 SD = 7.10	Range = 7-24 Mean = 19.52 SD = 4.54	Range = 0-10 Mean = 4.89 SD = 2.95	Range = 0-7 Mean =3.19 SD = 1.57
Group 2 N=14	Range = 42-86 Mean = 55.79 SD = 14.38	Range = 12-36 Mean = 28.86 SD = 5.86	Range = 8-24 Mean = 16.14 SD = 4.77	Range = 1-8 Mean = 5.43 SD = 2.28	Range=1-11 Mean= 5.64 SD = 3.03

dependent variables. In this study, the interest was in the construct being measured, not on individual item measurement within each subscale.

Table IV summarizes the statistical results from this study.

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TABLE IV

STATISTICAL RESULTS FOR PARTICIPATING ADOLESCENTS (N=41)

Dependent Variable	Group	Group Means	(SD)	F value	p value	ω^2	%
Communication	Structured	71.96	(14.24)	11.834	.001	.227	23%
	Non-structured	55.79	(14.38)				
Parental Monitoring	Structured	27.19	(7.10)	0.578	.454	.012	1%
	Non-structured	28.86	(5.86)				
Support	Structured	19.52	(4.54)	4.928	.032	.096	10%
	Non-structured	16.14	(4.47)				
Psychological Control	Structured	4.89	(2.95)	0.360	.554	.018	2%
	Non-structured	5.43	(2.28)				
Locus of Control	Structured	3.19	(1.57)	11.834	.001	.227	23%
	Non-structured	5.64	(3.03)				

As noted, there were significant differences between the two groups in the three areas of parent/adolescent communication, parent/adolescent support, and adolescent locus of control. There were no statistically significant differences between the mean scores of Group 1 (structured educational atmosphere) and Group 2 (non-structured environment) on parental monitoring (the degree to which parents know where their teenagers are and what they are doing) and psychological control (autonomous thought and action).

Support was provided for Hypothesis 1, which hypothesized a difference in scores on parent/adolescent communication for the structured and non-structured groups. With respect to significant group differences, Group 1 (structured educational atmosphere) had

higher scores ($\bar{X}$ = 71.96; SD = 14.24) on the parent/adolescent communication scale than did Group 2 (non-structured environment), ($\bar{X}$ = 55.79; SD = 14.38). This finding suggests that Group 1 subjects perceived more effective communication with their parents than did Group 2 adolescents.

Support was not provided for Hypothesis 2, which expected a difference in scores on perceived parental monitoring behaviors for the structured and non-structured groups. While Group 1 (structured educational atmosphere) had lower scores on the parental monitoring scale ($\bar{X}$ = 27.19; SD = 7.10) than did Group 2 (non-structured environment) ($\bar{X}$ = 28.86; SD = 5.86), the difference was not statistically significant.

Support was provided for Hypothesis 3 which posited a difference in scores on parent/adolescent support for the structured and non-structured groups. Regarding parent/adolescent support, Group 1 (structured educational atmosphere) had significantly higher scores on the parent/adolescent support scale ($\bar{X}$ = 19.52; SD = 4.54) than did Group 2 (non-structured environment), ($\bar{X}$ = 16.14; SD = 4.47), indicating a higher level of perceived parental support by Group 1 adolescents.

Support was not provided for Hypothesis 4 which hypothesized a difference in scores on parental psychological control for the structured and non-structured groups. While the non-structured group ($\bar{X}$ = 5.43; SD = 2.28) reported higher scores than the structured group ($\bar{X}$ = 4.89; SD = 2.95), the difference was not statistically significant. This difference in scores, although not statistically significant, indicates that Group 2 subjects tend to perceive their parents to control them through guilt than do subjects from Group 1.

Support was provided for Hypothesis 5 which posited a difference in scores on Rotter's Locus of Control scale for the structured and non-structured groups. Group 2 (non-structured environment) had higher locus of control scores ($\overline{X}$ = 5.64; SD = 3.03) than Group 1 (structured educational atmosphere)($\overline{X}$ = 3.19; SD = 1.57). Locus of control is defined as either internal or external: an adolescent with an internal locus of control feels their decisions will have an effect on what happens; an adolescent with an external locus of control may not attempt to make decisions because the belief is that chance or other people control what happens in life (Rotter, 1965). This finding indicates that Group 2 subjects believe that forces outside their own control influence their behaviors (external locus of control). The study results indicates that Group 1 subjects perceive more control over their lives than that their lives are governed by forces outside their own control (internal locus of control).

Researchers often provide an index of the strength of an effect as a compliment to practical significance (Keppel, 1991). In the current study, practical significance was assessed with omega squared. The adapted formula used here is as follows:

$$\omega^2 = \frac{(F-1)}{(F-1) + (\text{levels of the IV})\, N}$$

where N = 18.44 for this study (Group 1 N = 27; Group 2 N = 14)

All calculated omega squared values are presented in Table IV. These values provide evidence of a large group difference (Cohen, 1977) for parent/adolescent communication (.227) and locus of control (.227), with a medium effect for parent/adolescent support (.096). Further, although the analysis of parental monitoring and psychological control failed to reach statistical significance, omega squared suggests

group differences regarding these two dependent values that could be considered "small" (.012 and .018, respectively). Taken together, the assessment of effect size in the current study suggests that between 1% to 23% of the variability in adolescent scores across the measures could be attributed to differences between the structured and non-structured adolescent groups.

Summary

A qualitative set of questions was presented by focus groups with voluntary subjects. All subjects had identified life goals and the majority of subjects expect to modify their life goals by incorporating the baby into their existing plans. Family responses were diverse and reflected the processes of adjusting to unexpected family changes. The adolescents identified money as their major challenge with no specific plan for how to obtain the required financial help. Strengths identified by the subjects were love of children, patience, and willingness to learn. Financial and emotional support were identified as help needed to raise a child. These results were coded and a summary of the results was presented.

A single factor one way ANOVA was performed to determine group differences on five dependent variables. There were differences between Group 1 (structured educational atmosphere) and Group 2 (non-structured environment) on the following variables: parent/adolescent communication, parent/adolescent support, and locus of control. Practical as well as statistical significance was calculated for each variable.

CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

Overview

Adolescent pregnancy is an important issue in the United States, in part because few adolescents are prepared to assume the economic, social, and psychological responsibility of childrearing (Furstenberg, 1991). Adolescent pregnancy holds the potential to present challenges for the adolescent mothers, children born to adolescent mothers, adolescent fathers, grandparents, and the society as a whole. Using qualitative methods (focus groups), the present study proposed that it is important to consider how pregnant adolescents view their pregnancies as impacting their lives, the strengths they bring to motherhood, the challenges they expect, and the resources they anticipate needed to assist with childrearing. Further, using quantitative methods (self-report questionnaire data), this study investigated the extent to which adolescents participating in a structured and a non-structured program for pregnant adolescents viewed their parents' behaviors and whether there were locus of control differences between girls in the two groups.

Discussion of Research Findings

Qualitative Findings. The qualitative portion of this study included asking pregnant adolescents about their life goals before becoming pregnant, whether the life goals had changed since becoming pregnant, the adolescent's perception of the family's response to the pregnancy, the strengths the adolescent brings to motherhood, the challenges adolescents face as mothers, and the adolescent's perception of expected help needed in childrearing.

All of the subjects in the study had a life plan prior to the pregnancy. Few, however, reported they had altered that plan based on their pregnancy. A large number

of the study participants believed that their life goals would be delayed by the pregnancy. Yet, they reported expecting that they would still be able to continue with their life plans. This is consistent with other studies showing that sexually active adolescents have life satisfaction levels similar to levels of other adolescents (Billy, Lansdale, Grady, & Zimmerman, 1988). From a cognitive perspective, the limited ability of adolescents to engage in long-term hypothetical thinking and their egocentric tendency to believe they are immune from forces that affect others, impedes their consideration of pregnancy as an outcome of sexual activity (Miller & Moore, 1990). This result may be explained by the cognitive development of an adolescent, which does not allow the ability to consider the long range consequences of behavior. The implications of this finding could help in curriculum development for pregnant adolescents.

Adolescent perceptions of their family's responses relating to the pregnancy covered the full spectrum from happiness to shame. Some adolescents reported strained family relationships, while others said that their family members believed that the pregnancy would require the adolescent to become more responsible. The typical pregnant adolescent is likely to encounter disapproval or mixed feelings on the part of others and is likely to report feeling both guilty and worried as well as happy and excited (Gordon & Gilgrin, 1987). Programs to meet the needs of pregnant adolescents should include discussion of this wide range of potential reactions.

Financial concerns were the most frequently mentioned challenge to being an adolescent mother; actually being able to raise the child was the second area of concern. An additional challenge mentioned by the participants was not being able to spend as much time with their friends. A number of the respondents identified multiple

challenges. In light of these results, adolescent pregnancy should be viewed from a multidimensional approach with comprehensive assessments on individual, peer group, family, and community levels (Connelly, 1998).

Subjects had difficulty identifying their strengths; several doubted that they possessed any. Patience and the capacity to love were the two strengths most often identified by the adolescents. This response supports previous research findings in which pregnant adolescents identified caring and patience as qualities they possessed (Arenson, 1994). Future programs for pregnant adolescents could include an assessment of adolescent-identified strengths and positive life skills.

When asked what kind of help the adolescents would need to raise a child, money was identified as a necessary support. Almost all of the subjects identified emotional support as being important. Adolescent mothers who have social support from family and/or friends fare better than those who do not (Steinberg, 1996). Relationships with parents and siblings have also been described as being important in adolescents' lives. A program designed to meet the needs of this population could include the adolescent's identification of current and future support systems. An understanding of the positive potential of adolescent mothers can improve services and interventions provided and can enhance outcomes for these mothers and their children (Arenson, 1994).

Based on the results of the qualitative portion of the study, the following recommendations are made for future programs: 1) classes would be offered for pregnant adolescents and their family members, and 2) classes would be conducted in a "support group" format, with everyone together for the first portion of the class, then split into

adolescent mothers/family members. The following content is grouped according to the questions asked and the responses received in the qualitative portion of the study.

Life Goals. Since the subjects in the current study had difficulty deciding how to change their goals once they had a baby, the first item addressed with the adolescents would be realistic goal setting. For those participants who wanted to put their plans on hold, they would be encouraged to engage in behaviors that would allow them to incorporate their child into current and/or future activities.

Mentors or life coaches could be recruited from local church and civic organizations to help the pregnant adolescents learn life skills. One activity the first class session could focus on would be defining what competencies adolescent mothers need and determining what the benefits would be to the participants if they possessed these identified competencies.

Change in Life Goals. As mentioned previously, mentors could be helpful in allowing the adolescent to explore and discuss the consequences of her pregnancy. Specific strategies could include taking the pregnant adolescents on field trips to grocery and discount stores to determine the cost of infant supplies and clothing. Scanning the local newspaper for cost of housing would also be beneficial in providing "real-time" information for these adolescents. Identification of current job skills and planning for how to increase available job skills to earn the necessary money to care for a child would be useful.

Meaning of Pregnancy to Family. Since the family responses in this study had a wide range, the family members of the pregnant adolescent mother require support. In the class format previously mentioned, support groups would be available to the family members while the adolescents were participating in another portion of the class. This would allow the Family Life Educator to teach normal family responses to crisis situations and discuss ways to make the adolescent pregnancy more normative for the family. The Family Life Educator could also refer families with identified unresolved issues for further therapy.

A grief counselor could be available to help families deal with the losses associated with an adolescent pregnancy -- loss of role, perceived loss of respect by the community, and loss of dreams for the adolescent daughter. The counselor could also help the family identify positive coping skills and reinforce positive individual coping skills. This study identified a number of family responses and issues related to adolescent pregnancy; these family needs could be validated with future research.

Challenges of an Adolescent Mother. A registered nurse with maternity background could teach the adolescent mothers (and whoever will be providing care for the infant) child care skills, infant safety, and newborn nutrition. In addition, if financial concerns can not be met by other methods, a social worker could be available to help the adolescent access public assistance without feeling ashamed.

Adolescent Strengths in Motherhood. A Family Life Educator could help the adolescents identify their own and their family's strengths. Activities which increase the adolescent's self-esteem would be appropriate. Allowing the adolescents the opportunity to interact with newborns and reinforce positive parenting skills would be one way to

accomplish this goal. Utilizing mentors as role models of positive parenting behaviors would also be helpful, as would having a successful adolescent parent visit the class to share experiences. The educator could help the family members and adolescents identify what our culture values in adolescents and could plan curriculum to address these identified values.

Help to Raise Child. The previous paragraphs have identified some specific ways to help adolescents access the help they identified in the current study. The Family Life Educator could encourage the adolescents to identify needed help and to ask for that help. Encouraging the adolescents to think of concrete ways to get help would be beneficial.

A major strength of this study is its qualitative component. Although many studies have been conducted regarding adolescent pregnancy and childrearing, few have incorporated the adolescent's feelings and response to the effect the pregnancy will have on future life plans. Future studies with a larger sample size with other structured and non-structured groups representative of the total adolescent pregnant population would be beneficial. In addition, groups of adolescent females who had similar demographic characteristics except for the pregnancy would provide a useful comparison.

Quantitative Findings. There was both practical and statistical significance in three of the five dependent variables studied: parent/adolescent communication, parent/adolescent support, and adolescent locus of control. Each of these five areas will be discussed separately.

Parent/Adolescent Communication. As expected, there was a difference in reports of parent/adolescent communication between adolescents in the structured and

atmosphere reported more effective parent/adolescent communication than did pregnant adolescents in the non-structured environment. Thus, for adolescents within these two specific groups, pregnant adolescents who participated in the structured educational atmosphere perceived their communication with their parents to be better than pregnant adolescents who were not enrolled in such a program.

It could be hypothesized that increased communication between parent and adolescent allows for more open discussion of educational opportunities and decisions regarding what would best benefit both the adolescent and her child. Further research is needed to more fully investigate the extent to which pregnant adolescents are more likely to seek structured educational programs when they see themselves as having parents with whom they can communicate about important issues.

Parental Monitoring. Contrary to the hypothesis, pregnant adolescents in the structured and non-structured programs did not report differences in the levels of monitoring they preceived their parents using. In general, these findings stand in contrast to previous literature which supports the importance of parental monitoring to adolescent well-being (Luster & Small, 1994; Small & Luster, 1994). One possibility is that the differences in perceptions of parental monitoring may not be great between pregnant adolescents in various educational programs. Instead, it may be that differences in parental monitoring may be greater between pregnant and non-pregnant adolescents than among pregnant adolescents in various programs. Further, it is possible that differences in monitoring might be more evident if reports were gained from parents rather from pregnant adolescents. Such possibilities highlight the need for future research

investigating the role of parental monitoring in relation to adolescent pregnancy and intervention programs for pregnant adolescents.

Parent/Adolescent Support. As expected, the participants in the structured educational atmosphere scored higher than did those in the non-structured environment on parent/adolescent support. Thus, while previous research shows that parental support may reduce the risk for sexual risk-taking behaviors of adolescent females (Rodgers, 1999), it is also possible that adolescents who become pregnant and perceive greater parental support may be more likely to participate in structured programs designed to decrease the potential negative impact of adolescent pregnancy. Further research is needed to more fully explore the role of supportive parenting in minimizing the potential negative effects of adolescent pregnancy on the lives of adolescents.

Parental Psychological Control. In contrast to the expectations, there were no statistically significant differences between participants in the structured educational atmosphere and the non-structured environment regarding perceptions of parental psychological control. Both groups scored mid-range in the measure of perceptions of parental psychological control, indicating that the pregnant adolescents in this study see their parents as using average amounts of psychological control. Hoffman (1975) has demonstrated that adolescents whose parents use excessive psychological control may be less likely to demonstrate internal moral reasoning. In turn, adolescents who use less internal reasoning about moral issues may be inclined to be less likely to think through the consequences of their actions and be less likely to develop psychological and social competence (Baumrind, 1975). However, the perceptions of parental psychological control did not appear to explain differences in these two groups.

Locus of Control. As expected, pregnant adolescents in the non-structured environment had higher scores on Rotter's locus of control scale than did those in the structured educational atmosphere. This indicates that the adolescents in the non-structured program may see rewards to be based on external forces whereas those in the structured group may see rewards to be based upon the individual's behaviors. Such findings support the idea that adolescents who participate in a structured program may be inclined to see themselves as having greater impact on the outcomes in their lives than those in the non-structured programs. Consequently, adolescents who participate in the structured programs may represent a group more ready to accept responsibility for their actions and who will more readily take steps to minimize the potential negative impact of adolescent pregnancy.

Adolescents in the structured educational atmosphere are encouraged to take responsibility for the consequences of their actions and are encouraged to keep their infants and raise them with help. It could be suggested that being around others who are dealing with the challenges of adolescent parenting encourages students to be more accepting of their responsibilities in raising a child.

Limitations

The limitations of this study are similar to those identified in previous studies related to the topic of adolescent pregnancy and parenting. Measures in this study were only reported by adolescents and no information was collected from parents, peers, or school or clinic personnel. Data was collected at two different sites, but are not representative of the total adolescent pregnant population; therefore, generalization is restricted. The percentage of variance accounted for and practical significance of the

results is modest. This suggests that there are other factors that were not considered in this study that need to be identified and researched. A longitudinal study that follows adolescents and their children from both types of programs would be beneficial to determine whether or not the adolescents were able to continue with their previously identified life plan.

Summary

Adolescents who participated in the structured educational atmosphere reported higher levels of parent/adolescent communication, parent/adolescent support, and reported an internal locus of control. It could be that the effects of participating in this type of program influenced the responses of these subjects.

In the area of parent/adolescent communication, it is likely that a pregnant adolescent who is enrolled in an alternative education program has had a discussion with her parent(s) regarding future plans, at least as they pertain to education. Since parental permission is required to enroll in the structured educational atmosphere, parent(s) and adolescent must discuss enrollment prior to the student being accepted into the program.

Adolescents who participated in the structured educational atmosphere also reported higher levels of parent/adolescent support. Perhaps the discussion that is required between parent and adolescent prior to enrollment in the program facilitates an open discussion of other issues relating to adolescent childrearing.

The present study provides further support for other literature which stated that parental monitoring behaviors did not affect the adolescent's engagement in risk-taking behaviors. Since this finding is limited to the current study, more research is needed to determine whether or not a parent's knowledge of an adolescent's whereabouts and peer

associations can be an intervening variable in adolescent risk-taking behaviors. Prior to data collection, the researcher believed that the study results would support a difference in monitoring between the structured and non-structured groups.

The present study demonstrated positive results from adolescents who participated in a structured educational atmosphere. In the early chapters of this document, the need for school-based programs with a multidisciplinary focus was discussed. Programs which involve community professionals, medical and nursing staff, and dedicated teachers will make the greatest impact on a community. The problem of adolescent pregnancy is one with far-reaching economic, social, and psychological impact. Programs addressing these issues will best meet the needs of this target population.

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APPENDIXES

APPENDIX A – RESEARCH INSTRUMENTS AND INSTRUCTIONS TO SUBJECTS

ORAL SOLICITATION USED TO RECRUIT SUBJECTS*

My name is Paula Maisano. I am a graduate student at Oklahoma State University studying family relations. My original training is as a Registered Nurse, and I have always had an interest in pregnant adolescents. The purpose of the study that I am doing is to find out whether or not the ways adolescents communicate with their parents is important. I would like to ask you to participate in my study by completing several sets of questions. If you agree to participate in the study, I will ask you to sign a consent form that gives more specific information about the study.

The study actually has two parts. For those of you who complete the first part of the study I have just described, I will ask for volunteers who would be willing to be interviewed by me for the second part of the study. That interview would last about thirty minutes, and would be audiotaped. The purpose of the interview is to find out more about your pregnancy and some of the ways it has affected your life.

You may choose to participate in one part, both parts, or no parts of the study. I would like to distribute the consent form to those of you who would like to participate in the first part of the study. I will give you a chance to read the consent form completely and ask any questions you might have before you sign the form and we begin the study.

*The tone and wording of this statement were carefully designed to be acceptable to an adolescent population.

CONSENT FORM GUIDELINE

I, ____, hereby authorize or direct Paula Maisano, Dr. Carolyn Henry, or associates or assistants of choosing, to perform the following treatment or procedure.

This survey is completely anonymous and confidential. Please do not make any identifying marks on the survey. The information obtained is for research purposes only and will not be shared with anyone at any time. It will take you about 20 minutes to answer all of the questions in which you choose the response that is most true for you and answer some questions about yourself and your family.

If you choose to participate, there is a second part of the survey which involves an interview with a researcher and will take about 30 minutes to complete.

The purpose of the survey is to find out more about how adolescents and their parents communicate.

I understand that participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time without penalty after notifying the project director.

I may contact Paula Maisano at telephone number (918) 494-1674 or Dr. Carolyn Henry, 340 HES, Oklahoma State University, Stillwater, Oklahoma, 74078; phone number (405) 744-8357. I may also contact University Research Services, 001 Life Sciences East, Oklahoma State University, Stillwater, Oklahoma, 74078; telephone (405) 744-5700.

I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

Date: ____________________________ Time: __________________(a.m./p.m.)

Subject's Signature ____

Parent/Guardian Signature ____

DEMOGRAPHIC INFORMATION

Survey

Please complete the following information as accurately as you can. Either fill in the blank or circle the correct response.

About you:

1 How old are you today? ___________

Question						
2 What is the highest grade you have completed in school?	Freshman	Sophomore	Junior	Senior	N/A	dropped out of school
3 Ethnic background (circle one):	African American/ Black	Hispanic	Caucasian/ White	Native American	Pacific Islander	Asian
4 Is this your first pregnancy?	YES	NO	If no, how many times have you been pregnant? ___________			
5 Was this pregnancy planned?	YES	NO				
6 Did you use any birth control?	YES	NO	If yes, list types of birth control used: ___________			

About your family:

Question						
7 What is the highest educational level of your mother?	no high school	some high school / no diploma	high school graduate	some college / no degree	college degree	
8 What is the highest educational level of your father?	no high school	some high school / no diploma	high school graduate	some college / no degree	college degree	
9 Who do you live with most of the time? (circle one)	Mom and Dad	Mom	Mom & Stepdad	on your own	other relative	boyfriend (not baby's father)
	Dad	Dad & Stepmom	your baby's father	your baby's father's parents	with a friend	husband
10 Do you have any sisters?	YES	NO				
11 Do you have any brothers?	YES	NO				
12 How old was your mother when you were born?	Age____	Don't Know				
13 How old was your father when you were born?	Age____	Don't Know				

About your baby:

14 How old is the father of your baby? ______

Question			
15 What month and year is your baby due?	Month_____	Year _____	Already Delivered
16 Do you plan to keep your baby?	YES	NO	

PARENT/ADOLESCENT COMMUNICATION

Instructions: Please read each statement and *circle* the answer that indicates how much the following are true for you. *Remember: Answer about the adult you live with.* List the adult about whom you are answering (ex. mother, father, stepmother, stepfather, etc.) ____________________

1. I can discuss my beliefs with my parent without feeling restrained or embarrassed.
   Strongly Disagree | **Moderately Disagree** | **Neither Agree Nor Disagree** | **Moderately Agree** | **Strongly Agree**

2. Sometimes I have trouble believing everything my parent tells me.
   Strongly Disagree | **Moderately Disagree** | **Neither Agree Nor Disagree** | **Moderately Agree** | **Strongly Agree**

3. My parent is always a good listener.
   Strongly Disagree | **Moderately Disagree** | **Neither Agree Nor Disagree** | **Moderately Agree** | **Strongly Agree**

4. I am sometimes afraid to ask my parent for what I want.
   Strongly Disagree | **Moderately Disagree** | **Neither Agree Nor Disagree** | **Moderately Agree** | **Strongly Agree**

5. My parent has a tendency to say things to me which would be better left unsaid.
   Strongly Disagree | **Moderately Disagree** | **Neither Agree Nor Disagree** | **Moderately Agree** | **Strongly Agree**

6. My parent can tell how I'm feeling without asking.
   Strongly Disagree | **Moderately Disagree** | **Neither Agree Nor Disagree** | **Moderately Agree** | **Strongly Agree**

7. I am very satisfied with how my parent and I talk together.
   Strongly Disagree | **Moderately Disagree** | **Neither Agree Nor Disagree** | **Moderately Agree** | **Strongly Agree**

8. If I were in trouble, I could tell my parent.
   Strongly Disagree | **Moderately Disagree** | **Neither Agree Nor Disagree** | **Moderately Agree** | **Strongly Agree**

9. I openly show affection to my parent.
   Strongly Disagree | **Moderately Disagree** | **Neither Agree Nor Disagree** | **Moderately Agree** | **Strongly Agree**

10. When we are having a problem, I often give my parent the silent treatment.
   Strongly Disagree | **Moderately Disagree** | **Neither Agree Nor Disagree** | **Moderately Agree** | **Strongly Agree**

11. I am careful about what I say to my parent.

Strongly Disagree	Moderately Disagree	Neither Agree Nor Disagree	Moderately Agree	Strongly Agree

12. When talking to my parent, I have a tendency to say things that would be better left unsaid.

Strongly Disagree	Moderately Disagree	Neither Agree Nor Disagree	Moderately Agree	Strongly Agree

13. When I ask questions, I get honest answers from my parent.

Strongly Disagree	Moderately Disagree	Neither Agree Nor Disagree	Moderately Agree	Strongly Agree

14. My parent tries to understand my point of view.

Strongly Disagree	Moderately Disagree	Neither Agree Nor Disagree	Moderately Agree	Strongly Agree

15. There are topics I avoid discussing with my parent.

Strongly Disagree	Moderately Disagree	Neither Agree Nor Disagree	Moderately Agree	Strongly Agree

16. I find it easy to discuss problems with my parent.

Strongly Disagree	Moderately Disagree	Neither Agree Nor Disagree	Moderately Agree	Strongly Agree

17. It is very easy for me to express all my true feelings to my parent.

Strongly Disagree	Moderately Disagree	Neither Agree Nor Disagree	Moderately Agree	Strongly Agree

18. My parent nags/bothers me.

Strongly Disagree	Moderately Disagree	Neither Agree Nor Disagree	Moderately Agree	Strongly Agree

19. My parent insults me when he/she is angry with me.

Strongly Disagree	Moderately Disagree	Neither Agree Nor Disagree	Moderately Agree	Strongly Agree

20. I don't think I can tell my parent how I really feel about some things.

Strongly Disagree	Moderately Disagree	Neither Agree Nor Disagree	Moderately Agree	Strongly Agree

PARENTAL MONITORING SCALE

How like your parent is each of the following statements?

1. If I am going to be home late, I am expected to call my parent.

   Never **Rarely** **Sometimes** **A lot of the Time** **Always** **No Mother/Father at Home**

2. I tell my parent whom I'm going to be with before I go out.

   Never **Rarely** **Sometimes** **A lot of the Time** **Always** **No Mother/Father at Home**

3. When I go out at night, my parent knows where I am.

   Never **Rarely** **Sometimes** **A lot of the Time** **Always** **No Mother/Father at Home**

4. My parent knows who my friends are.

   Never **Rarely** **Sometimes** **A lot of the Time** **Always** **No Mother/Father at Home**

5. My parent knows the *parents* of my friends.

   Never **Rarely** **Sometimes** **A lot of the Time** **Always** **No Mother/Father at Home**

6. I talk to my parent about the plans I have with my friends.

   Never **Rarely** **Sometimes** **A lot of the Time** **Always** **No Mother/Father at Home**

7. When I go out, my parent asks me where I'm going.

   Never **Rarely** **Sometimes** **A lot of the Time** **Always** **No Mother/Father at Home**

8. My parent usually knows what I am doing after school

   Never **Rarely** **Sometimes** **A lot of the Time** **Always** **No Mother/Father at Home**

9. My parent knows how I spend my money.

   Never **Rarely** **Sometimes** **A lot of the Time** **Always** **No Mother/Father at Home**

PARENT/ADOLESCENT SUPPORT

How like your parent is each of the following statements?

1. My parent is there when I need him/her.

Never	Rarely	Sometimes	A lot of the Time	Always	No Mother/Father at Home

2. My parent trusts me.

Never	Rarely	Sometimes	A lot of the Time	Always	No Mother/Father at Home

3. My parent respects me and what I have to say (my opinions, values, etc.)

Never	Rarely	Sometimes	A lot of the Time	Always	No Mother/Father at Home

4. My parent cares about me.

Never	Rarely	Sometimes	A lot of the Time	Always	No Mother/Father at Home

5. My parent is fair when it comes to enforcing family rules.

Never	Rarely	Sometimes	A lot of the Time	Always	No Mother/Father at Home

6. My parent listens to me.

Never	Rarely	Sometimes	A lot of the Time	Always	No Mother/Father at Home

PARENTAL PSYCHOLOGICAL CONTROL

How like your parent is each of the following statements?

1. My parent feels hurt when I don't follow his/her advice.

   Like My Parent **Somewhat Like My Parent** **Not Like My Parent**

2. My parent feels hurt by the things I do.

   Like My Parent **Somewhat Like My Parent** **Not Like My Parent**

3. My parent says if I loved him/her, I'd do what he/she wants me to do.

   Like My Parent **Somewhat Like My Parent** **Not Like My Parent**

4. My parent tells me all the things he/she has done for me.

   Like My Parent **Somewhat Like My Parent** **Not Like My Parent**

5. My parent says if I really cared for him/her, I would not do things that cause him/her to worry.

   Like My Parent **Somewhat Like My Parent** **Not Like My Parent**

LOCUS OF CONTROL SCALE

Instructions: Read each pair of statements and circle the letter (a or b) of the statement closest to your personal view.

1. a. Many of the unhappy things in people's lives are partly due to bad luck.
   b. People's misfortunes result from the mistakes they make.

2. a. In the long run, people get the respect they deserve in this world.
   b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

3. a. Without the right breaks, one cannot be an effective leader.
   b. Capable people who fail to become leaders have not taken advantage of their opportunities.

4. a. Becoming a success is a matter of hard work; luck has little or nothing to do with it.
   b. Getting a good job depends mainly on being in the right place at the right time.

5. a. What happens to me is my own doing.
   b. Sometimes I feel that I don't have enough control over the direction my life is taking.

6. a. When I make plans, I am almost certain that I can make them work.
   b. It is not always wise to plan too far ahead, because many things turn out to be a matter of good or bad fortune anyhow.

7. a. In my case, what I want has little or nothing to do with luck.
   b. Many times we might just as well decide what to do by flipping a coin.

8. a. Who gets to be boss often depends on who was lucky enough to be in the right place first.
   b. Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.

9. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
   b. There is really no such thing as "luck."

10. a. In the long run, the bad things that happen to us are balanced by the good ones.
    b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

11. a. Many times I feel that I have little influence over the things that happen to me.
    b. It is impossible for me to believe that chance or luck plays an important role in my life.

QUALITATIVE QUESTIONS

1. What were your goals in life before you became pregnant?

2. How has pregnancy affected your life goals?

3. What does your pregnancy mean to your family?

4. What challenges do you face as an adolescent mother?

5. What strengths do you bring to motherhood?

6. What kind of help do you think you will need in raising your child?

APPENDIX B – COPY OF RESEARCHER'S NURSING LICENSE

OKLAHOMA BOARD OF NURSING
This certifies the following individual
is entitled to practice as a
REGISTERED NURSE

CERTIFICATE NO.	BIENNIAL NO.	ADV. PRACT.	CODE
R0032586	01326007		

MAISANO, PAULA CAROLE

VAL SEP 01,1998 EXP AUG 31,2000

Paula Carole Maisano — SIGNATURE

Moffett RN — EXECUTIVE DIRECTOR

APPENDIX C – TRANSCRIPTS OF FOCUS GROUPS

Focus Group #1 Margaret Hudson Program
Thursday, October 21, 1999 10:30 - 11:30 a.m.
14 participants

1. What were your goals in life before you became pregnant?
Well, I wanted to be a professional cheerleader and go on to college. I think that I will have to put that cheerleader thing on hold being that I am pregnant now. Can you see me jumping around and doing flips while I am all big and fat?

I want to go to college to become a pediatrician. Either that or own my own day care. I think that would be fun. Whatever I end up doing, I know that I want to work with kids. I really love kids.

I think I want to be a pediatrician, too. Isn't that a doctor who takes care of kids? I just know that I want to go to school and graduate. I really wanted to have a family after I had finished school, but I guess that isn't going to happen the way I planned it now.

I want to go to college and become a lawyer. I think I would like to work for people who don't have enough money for a lawyer. I think I would be really good in the courtroom in front of a jury.

I want to finish high school and go on to college. I haven't really thought about what I want to study in college; I just want to go. You can't get a really good job unless you have a college education.

I was going to go to California to go to college. That is where my aunt lives, and I was going to live with her while I went to college. Now, I am planning to stay here so my mom can help me take care of my baby. I don't know if I will go to college right away or not.
Do you think you will eventually end up going to college?
Yes, but I might have to wait a year or two.

I want to graduate from high school and go on to college. I am a cheerleader and soccer player right now, and I wanted to continue on with that. I think I will be able to until I get real far along and real big. After I have the baby, I want to still play soccer and be a cheerleader, and I would like to be a college cheerleader.

I want to finish high school and go to college and become an attorney. I like to talk and argue a lot, and I think that would be a good job for me.

I wanted to graduate high school and then go to the Navy so I could get money for college. I don't know if I can get someone to keep my baby so that I could go to the Navy. I guess I don't want to do that any more since I don't want to spend that much time away from my baby.

I want to be an artist and I want to graduate from high school.

I wanted to be able to finish out my senior high school year at Booker T. Washington, but I can't do that now. I also originally wanted to go to school in Atlanta or maybe TCC. I wanted to major in being a dental assistant.

I want to get my GED and maybe go to college eventually.

I want to finish high school, graduate college, and have a career in journalism.

I didn't really want to go to the Margaret Hudson Program. I wanted to get a job before I got pregnant.
What do you mean when you say you didn't want to go to the Margaret Hudson Program?
Just that I wish I could have stayed in my regular high school and finished up with my friends.

2. How has being pregnant affected your life goals?
I don't think it has.
You are still planning to continue on with things you had planned after the pregnancy is over?
Yes. I still have the same goals, I will just have to work harder.
How will you have to work harder?
You know - I will have to make arrangements for where my baby will stay and who will watch her while I work; things like that.

I think as long as I'm in school I am on the right track. My mom is paying for my college, so that won't be a problem for me.

Bad.
Bad in what way?
I can't do anything that I had originally planned to do. I think everything has changed with this baby. I can't get a good job because I only have a high school diploma. All my money that I would make from a job will go to day care, and I won't have any left over to live on.

I think it will take a lot longer and be a lot harder to achieve my goals with a baby to take care of.

It has changed my goals because now I have someone else to think of besides just myself.

I think now that I probably won't be a cheerleader in college because of the baby and all. Some of my plans have changed, but not all of them. I do still plan to go to college, I just won't be a cheerleader.

The baby has changed a lot of my plans. It has put me behind one year in school and has put a financial damper on things. It took away all my college parties.
I am not sure I understand what you mean by that.
You know those parties you go to where a school comes and tells you about what things they have? They don't really want to see a pregnant girl at those things. People kind of look at you funny. Also, I won't have the money to go to college now. All the money will have to go to take care of the baby.

I can still graduate, but I don't know about the Navy now.
Could you join the Navy later?
I guess I probably could, but I don't think I will. My mom doesn't want to raise my baby, and I don't want to spend that much time away from her.

It really hasn't changed my plans at all. In this program, I can still take all my high school classes and I can graduate and go on to school if I want to.

I'm not able to go to my home school Washington any more. I wanted to go my whole four years there; I really like it there. I can still graduate and go to a school, but it won't be in Atlanta. It will probably be in Tulsa.

Being pregnant has made me strive even harder to get my goals done. Like instead of getting a GED, I came back to school to graduate and get my diploma. That was important to me, not getting a GED. I really wanted to get my diploma like everyone else.

It hasn't changed my plans. I am going on with them just like before.

I am sick a lot now, and that kind of changes the way I feel about everything. I feel different because I am young and pregnant and I think people make lots of judgments about me.
What kind of judgements do you think they make?
Like, I'm a slut. Or like I should have known how to keep from getting pregnant.

3. **What does your pregnancy mean to your family?**
They were mad at first, but they are OK about it now. They thought I waited too long to tell them, but I knew they would be mad, so I kept it from them as long as I could.

They were shocked and disappointed, but they were always there for me. I think they knew that it was hard for me, so they tried not to freak out about it too much.

They are happy. They were ashamed at first, but now they just love her to death. I think after she got here and was so sweet, they just had to love her.

My family just thinks that it is more food for them to buy. They weren't really excited about having another member of the family.

They were mad at first, but now they realize that it has made me more mature and responsible.
In what ways?
Well, like I think more about things. About whether what I am doing will be good for the baby and I try to get more rest and not go out all the time with my friends like I did before.

It has changed the way they see me. They love her a lot, but everything has changed with me and my family.
Can you tell me how things have changed?
Sometimes me and my mom argue about how to take care of the baby. She has her ways, and I have mine. It is hard sometimes because me and my mom fight about how things need to be done and I think she's my baby, not yours. My family doesn't think I am old enough to be making decisions about how to raise my baby.

My family was slightly disappointed at first, but they got over it and now they are glad I had and kept the baby.

They were disappointed, but knew I was strong and could get through it OK.
And have you been able to?
Well, so far, I guess I have. I haven't had the baby yet, so I guess there are some things still to come, but I have made it this far.

On my side of the family, there was really nothing; no reaction. My brothers loved my son after he was born, and my mom hasn't seen him since he was four months old. He's eight months old now. On his father's side, he's loved and adored. I live with the father of the baby and his family, so I guess what my family thinks really doesn't matter.

All the pregnancy has meant to my family is another grandchild and another mouth to feed. They are not too crazy about the situation.

It means another grandchild and nephew in the family. It really doesn't change much.

All of my family is really happy about it.

Some of my family thinks I have messed up my chances for success. Others believe I'll do better now because I have a reason.

And what do you think?
I really don't know. I guess it could go either way. I am excited about having a baby, but I don't know about raising a baby or anything like that. I guess I will learn as I go along.

They're happy and can't wait until I have him.

4. **What challenges do you face as a mother?**
Not going everywhere your friends are going. Like my friends will call to see if I can meet them and I am tired or not feeling good. Or sometimes, they just go out without calling me any more.

I can't do things I used to do - like cheerleading. And I miss that, because it was fun to do and all those girls were my friends. I worry about money, too.
What concerns do you have about money?
I know I can just get a minimum-wage job, like in a restaurant or something, and that won't be enough to pay for everything the baby will need.

I have to be careful now not just to hang out and do drugs. It is really important for me to pick good friends and finish high school. Before, it didn't really matter so much if I did those things, because it was just me to think about. Now I have to think about the baby too.

Waking up in the night. I need lots of sleep and like to sleep late in the morning. Everyone tells me that the baby will wake up a lot in the night and I don't like that.

Getting through high school and making enough money to take care of me and my baby.
Have you thought about how you might do that?
Not really, but I know I need to think about it soon.

Challenges that I have is going to school even if she is sick. Also having money for what my child needs and wants. I worry that I won't be able to get everything I need done for my child. I am not really that responsible, and having a baby means you need to be responsible.

Financial struggles worry me. Also, not always being able to go out with my friends is a real drag.

Getting jobs and being a single mother are challenges. Also, resisting teen pressures.
What teen pressures?
You know, like when your friends want to drink or do drugs. You might think you want to, but then you think, oh yeah, I have a baby to think about.

I already have money problems because I can't get a job because I have to stay home with him.
Have you thought about a babysitter?
The only kind of work I can do is like working in a fast food place. After I pay for day care, there wouldn't be any money left over. So, it is easier to apply for help like AFDC or food stamps.

I go through physical and mental changes and phases.
Like what?
Well, like, I feel like I want to cry sometimes. And my head is not in the same place as my friends' any more. I have a lot of other things to think about besides what to wear or where to shop or who to meet or go out with.

I have to find a job at my age. I have to worry about somebody else besides me. How can I provide a safe environment for my child?
What do you mean?
Like those shows you see on TV. You can leave your baby with somebody and they can be real mean to them. How do you know that the people you leave them with will be good to them?

I wonder if I will be able to keep a steady job because I may not have anyone to keep my child.
Have you thought about what you might do?
Not yet, because the baby isn't here yet.

It will be a lot harder to work, go to college, and raise a child than it would be if I didn't have a baby. I still want to go to college, but I'm not sure how I could work that out.

I really don't face that much. My husband has been a great help.

I think raising a child is going to be a big responsibility.

5. **What strengths do you bring to motherhood?**
What do you mean by strengths?
What will make you a good mother?
I don't know.
I don't think I understand what you mean.
Well, some people have been around young children, like brothers or sisters, or have been babysitters. That would help you know how to raise your own baby.
I don't think I've done anything like that. I don't know much about babies.

I know - patience. I am really patient. Is that what you mean?
Yes, patience is a strength.

Well, I love children. I know that.

I know how to change a diaper and I love children. I have loved children for a long time. I'll learn as the days go by.
Would you say you're willing to learn? That's a strength.
Yes, I am willing to learn.

I think I'm understanding and patient. People have told me that before.

I am responsible. I am patient and very willing to learn new ways to handle my child. I am a good listener and I am reasonable.

I love my little boy. I think raising him in church, baking cookies, reading stories, playing games, and being supportive are strengths. Also, ensuring good morals and a good value system are important. I am also very considerate.

Having his mom and dad together is a strength. Me and the baby's father are together and a lot of kids don't have that.

I am strong willed. I don't know if that is a strength, but I am willing to listen.

I'm sensitive and open. I have enough patience, but not a lot.

I am willing to learn. I am also willing to manage to stay strong for me and my baby.

I'm able to care, love, and provide for my child.

I feel I'm great with kids and I will be the best mother I can be.

I am strong-willed, whole-hearted, and dependable.

I know how to take care of kids because I raised my little brother for a while. I guess that will help me.

6. What kind of help do you think you will need to raise your child?
I will need the baby's dad to stay around.

I will need money and my family.

My mom's help for support and the baby's daddy for money and support.

My mother; my baby's daddy; my boyfriend. I will need help from all of them to keep me strong.

Money.
Do you have any idea where you will get the money you need?
I have thought about getting a job, but I don't think I will make much money at it. I guess my family will have to help me out. I don't think they will be too happy about that.

I need my family, the baby's father, and his family and friends.

My boyfriend helps tremendously. I have the support of my family, but babysitters are always needed. I always need more time and money and energy!

My child's father, money, and strength.
What kind of strength?
I don't know, all kinds I guess.

The only help I have now is my son's grandmother, his father's mother. I guess that is all I need.

My child's natural father. My mom and my strength to go through another day.

I need someone to watch the baby when I'm at school and work.
Have you made any plans for that?
No, not yet.

I will need financial and emotional help from my parents. They say they are willing to do that.

My husband has supported me since I was pregnant and I think he's all I need.

Someone to help me get diapers, milk and all that stuff.
Do you know who will help you with that?
No, not yet. My baby isn't here yet, but I know I will need help to get all things the baby will need.

Focus Group #2 TCCHD Clinic
Tuesday, November 9, 1999 2:30-3:30 p.m.
12 participants

1. **What were your goals in life before you became pregnant?**
To go to college, get married, and get a good job.

I wanted to go to college and become a teacher.

To finish high school. After high school, I wanted to go on to beauty school.

I have always wanted to be a nurse.

I wanted to become a kindergarten teacher.

I wanted to go to college, get married and have a family, and have a good career.

I wanted a good job where I could make lots of money and I wanted a nice house.

I wanted to be a math teacher.

I wanted to finish college. I really hadn't planned what to study yet. I just know I wanted a college degree.

I just wanted to graduate from college. I hadn't thought much further than that.

I wanted to graduate from high school. I'm not sure whether I'll graduate now, or just get my GED.

I wanted to finish school and be valedictorian of my class. I also wanted to go to the prom.

2. **How has pregnancy affected your life goals?**
My father will not pay for college now that I am pregnant. He says that I have to find a way to do it myself.
Have you thought about how you might do that?
I've thought about it, but I haven't figured anything out yet.

I think my plans will just be delayed maybe for a year or so while the baby is really little. Then, I want to go on with my life as I planned to.

I will just have to wait until the baby is born and then go on with my plans.

It will take longer for me to accomplish my goals, like maybe a year or so.

Having a baby has delayed my plans. I will have to see how everything works out after I have the baby before I decide about my plans.

I can't do the things I want.
Like what?
Like go out with my friends and drink and smoke with them like I did before.

It has delayed my education. I guess I will be starting in a new direction after the baby is born.
What kind of direction?
Well, I never thought I would have a baby this young. I guess I will be a mother and start my family a lot sooner than I expected.

I can't achieve my goals without struggling. I think everything will be harder with a baby.

It has put my goals on hold.
Do you have any idea for how long?
No, but maybe for good.

Being pregnant has affected my grades. I don't feel well, so I rest a lot and am behind in my school work. I keep telling myself, my friends will have higher GPAs, but I get to have a baby!

3. **What does your pregnancy mean to your family?**
My father no longer speaks to me. It has made things very difficult at home. Everyone is walking around quiet all the time. It has made everyone take sides. My mom is still speaking to me, but it makes my dad mad at her. Things are pretty rough at home right now.

My family is ashamed of me. They try not to talk about the pregnancy at all if they can help it.

My mom is really mad. She thinks that I should have used something to keep from getting pregnant.

This has been pretty much of a crisis for my family. At first, we talked about whether or not to keep the baby, but I didn't want to give it up, so they let me keep it. Now, it seems like they don't think that's such a good idea.

My family is embarrassed.

My parents are disappointed in me. They said that they expected better from me.

I don't know what my parents think. No one at my house seems to want to talk about the pregnancy.

My family is really sad. My mom cries a lot, and my dad just loses his temper.

They support me, but they are disappointed in my decisions.

It is alright with them, but I am sure they are disappointed.

It has put a strain on my family because their "sweet girl" is not so sweet any more.

My mom understands and is cool about it, but is disappointed with me as she thought I knew how to prevent it.

4. **What challenges do you face as a mother?**
Money!
What do you mean?
It takes a lot of money to raise a baby. Babies need lots of things, and they all cost money. I don't have a job, and my parents don't make a lot of money. I don't know where we are going to get the money we need to raise this baby.

Keeping my baby and still being able to achieve my goals in life.

I know I am not ready to be a mom, and that makes me scared.

Balancing school, work, and being a mother is going to be tough.
Have you thought about how you might do that?
I am hoping that my family will be able to help me figure it out when the time comes.

Finding a babysitter so I can go out with my friends. I don't want to be tied down all the time just because I have a baby. I am young and I still need to have fun.

Finishing school and finding a good job. I know I am not trained to do anything that will make really good money, so I am going to have to work really hard.

Being responsible for someone else is really weird. My parents say I can't even take care of myself, so how can I take care of a baby? I don't like it that I can't be with my friends as much as I used to. Taking care of someone else seems like it will be a lot of work.

There are so many challenges that I can't even name them. Everything I think of seems like a challenge right now.

People keep saying that I will be a child raising a child. I think that might make us really close. Finishing school is going to be hard. I already have days when I don't want to go

because I don't feel good or I am tired of having people stare at me and talk about me at school.

Trying to raise a baby by myself scares me. I don't think my family will help out much, and the baby's daddy isn't really interested. I think it is all going to be up to me.

I am afraid of labor. I don't like to hurt and I don't know what to expect.
Have you thought about going to some classes to get you ready?
Yeah, but those classes are for adults and I would feel stupid being the only kid there. I think people would look at me and wonder why is she here?

5. **What strengths do you bring to motherhood?**
What?
Strengths - something you are good at.
I don't know. It seems like right now, I'm not good at anything.

Nothing I can think of.
Some people think patience is a strength.
Oh, well, I guess I am patient enough.

I love people. Like, I love the baby's daddy, so I guess I'll love the baby, too. Is that a strength?
Yes, it is.

I have lots of support and resources from my family. I am caring and loving, and I try to be good to myself.

Well, I already love my baby, so I think that will be good.

I have lots of patience and I think I am mature for my age.

I don't know; I don't think I have any strengths.

I have a good heart and I will love God's gift to me.

I love my child and will put my child first.

I have a great deal of love in me.

My mom is a good mom, so I think I will be, too.

6. **What kind of help do you think you will need in raising your child?**
Money and emotional support. I think it will be really hard to know the right things to do with a baby, and I know I will need financial support.

Money and someone to help me parent the baby.
Have you given any thought to how you might get money?
I guess I will have to get a job.

My mom and my dad will be a lot of help. I will need people to help me babysit, too. And I know I will need money.

I will need help with babysitting. Also, I will need help to get clothes and formula for my baby.

I don't know what kind of help I will need.

I think I will need a lot of help, but I am not sure exactly what kind. I guess just with everything.

I will need my family and God's support.

I will need moral support.
From whom?
My family and the father of the baby.

I will need emotional support from my family, and I will need the baby's father to help pay for things.

I guess I will need money from anyone who will give it to me.

APPENDIX D – HUMAN SUBJECTS RESEARCH APPROVAL

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

Date:	August 20, 1999	IRB #:	HE-00-109
Proposal Title:	"INDIVIDUAL AND FAMILIAL CORRELATES OF SEXUAL ACTIVITY AS PERCEIVED BY PREGNANT ADOLESCENTS"		
Principal Investigator(s):	Carolyn Henry Paula Maisano		
Reviewed and Processed as:	Expedited (Special Population)		

Approval Status Recommended by Reviewer(s): Approved

Signature:

Carol Olson, Director of University Research Compliance

August 20, 1999
Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Paula Carole Maisano

Candidate for the Degree of

Doctor of Philosophy

Thesis: PERCEPTIONS OF PREGNANT ADOLESCENTS IN STRUCTURED AND NON-STRUCTURED PROGRAMS REGARDING INDIVIDUAL AND FAMILY FACTORS

Major Field: Human Environmental Sciences

Biographical:

Education: Graduated from Yerington High School, Yerington, Nevada, May, 1974; received Bachelor of Science in Nursing, The University of Tulsa, Tulsa, Oklahoma, May, 1978; received Master of Science, University of Oklahoma, Norman, Oklahoma, December, 1983. Completed Requirements for the Doctor of Philosophy Degree at Oklahoma State University, Stillwater, Oklahoma, July, 2000.

Experience: Staff Nurse, Labor & Delivery; Patient Care Supervisor, Unit for Special Maternity Care; Coordinator, Women's Pavilion; Education Specialist; Manager, Nursing Education; Saint Francis Health System, Tulsa, Oklahoma, 1978 to present.

Professional Memberships: National Council on Family Relations, Sigma Theta Tau, Kappa Omicron Nu.