ATTITUDES AND BELIEFS OF UNMARRIED PREGNANT ADOLESCENTS: DECISION-MAKING, SEXUAL ATTITUDES AND FUTURE EXPECTATIONS

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Chapter I

Introduction

Adolescent pregnancy comes with a high social and economic cost in the United States. The U.S. has the highest incidence of teen pregnancy and birth in the industrialized Western world (Hillard, 2005). While abstinence is the most effective method of birth control a large percentage of adolescents in the U.S. are sexually active and therefore must have access to safe and effective methods of birth control. The need for effective and available birth control to sexually active teenagers has been a frontrunner in social, educational, and medical research for decades. Even with competent reproductive health education and availability of reliable birth control, teenagers continue to become pregnant in the U.S. at alarmingly high rates.

McKay and Barrett (2010) report a 25.5% decline in the teen birth/abortion rate in the U.S. during their study period of 1996-2006. Even with this decline the U.S. had the highest teen pregnancy rates of four countries studied, Canada, Sweden, U.S., and England/Wales, in 1996 at the beginning of the ten year study and in 2006 at the end of the study (McKay & Barrett).

Centers for Disease Control and Prevention (CDC) report a total of 409,840 infants born to 15-19 year old females in the U.S. in 2009. This is a rate of 39.1 per 1,000 females in this age group. Two of three births occurring in this age group are unintended. Teen pregnancy decreased from 1991 through 2005 by more than one-third

but increased by 5 % over a 2 year period in 2006 and 2007. Data from 2008 and 2009 show a downward trend in teen pregnancy rates (Centers for Disease Control and Prevention, 2011).

Three fourths of teen pregnancies are unintended. Emotional, physical, and social consequences of teen pregnancy for the mother often include low annual income, inadequate education, and poor personal health habits and prenatal care (Meade, Kershaw, & Ickovics, 2008). Other risk factors of teenage mothers were identified in three studies examining relationships between maternal birth age and childbearing. These studies showed adolescent mothers have higher levels of poverty, greater chances of raising children in single-parent households, less effective parenting skills to include harsh/inconsistent disciplining, lower parental monitoring of offspring, and less emphasis on education for offspring than women who delay pregnancy until adulthood (Meade et al.).

Children born to teenage mothers are more likely to suffer physical and cognitive problems than are children born to adult mothers. Cornelius et al. (2009) conducted a study examining size and intelligence between two cohorts of offspring born to adult and to adolescent mothers who attended the same prenatal clinic. Both cohorts were of low socioeconomic status. The children and mothers were studied for six consecutive years. At birth, children of adolescent mothers had significantly lower birth weight and shorter gestational age but there were not significant differences in head circumference (HC). Mean age of teen mothers was 16.3 years (range: 12-18). Mean age of adult mothers was 23.0 years (range: 18-42). At age 6 years, offspring born to adolescent mothers had significantly lower scores on composite intelligent quotient (IQ) tests, higher body mass

index (BMI), and significantly smaller HC than did born to adult mothers. Teenage parents have fewer economical resources and more unhealthy eating habits than do adult parents on average. Poor dietary habits are likely passed on to children of adolescents and may explain the higher BMI. The structure of the brain is sensitive to environmental variables such as cognitive stimulation and parenting practices during infancy. Compared to older mothers, adolescent mothers were less verbal and less sensitive to their children's needs. Adolescent mothers were more negative about parenting and provided less intellectual stimulation to their children. Intellectual enrichment in early life is conducive to improved cognitive ability (Cornelius et al.).

This is a replication of the Spear's (2004) study. The study is based on a previous qualitative study in which eight unmarried pregnant teens of similar socioeconomic back-grounds attending an alternative school for pregnant adolescents participated (Spear). The young women in the Spear study were analyzed regarding decision making, contraceptive behavior, sexual attitudes, and future expectations. Though all participants were knowledgeable regarding pregnancy prevention, none consistently practiced contraception, and all were indifferent regarding sexual activity. Only three of the eight participants experienced ongoing positive relationships with their own fathers. However, all eight study participants expressed expectations of ongoing support from the fathers of their unborn children.

In this replicate study, pregnant adolescents will be recruited from a faith-based urban clinic in central Indiana. This faith-based center provides counseling and medical services to women experiencing pregnancy related crisis. Study inclusion criteria are as follows: (a) unmarried pregnant women between the ages of 13-19, (b) English speaking,

(c) any ethnic group, and (d) choosing to continue their pregnancy and parent. A total of 10 participants will be enrolled in the study. A qualitative research design will be used allowing for in-depth exploration of participants thoughts, beliefs and experiences regarding decision making, contraceptive behavior, sexual attitudes, and future expectations. Written permission to participate in the study will be required. A total of three interviews each expected to last 30-60 minutes will be conducted and digitally recorded on the clinic site at regular intervals determined by prenatal visit schedules.

Understanding thoughts, beliefs, and experiences regarding decision making, contraceptive behavior, sexual attitudes, and future expectations of unmarried pregnant teenagers choosing to continue their pregnancies and parent will aid in development of pertinent nursing interventions and community programs to meet the needs and assist with the challenges that pregnant teenagers face. Increased insight into the learning needs, motivators, and future expectations of young people in regards to sexual activity, pregnancy, and parenting will assist nurses working with youth to develop effective educational programs promoting avoidance of early sexual activity and childbearing.

Background and Significance

Teenage pregnancy was the norm in many societies for most of human history. Prior to the middle of the twenty first century girls in developed countries usually married within a few years of reaching menarche. Without availability of effective contraception women tended to become pregnant soon after marriage. The rate of teen pregnancy was higher in the U.S. in the 1960s than it is now. However, the majority of teen pregnancies at that time occurred to married women. Single pregnant teenagers usually married

during pregnancy. Currently less than 25% of teen births in the U.S. occur within marriage (Brown & Brown, 2006).

Over the last five decades public acceptance of single motherhood in the U.S. has increased along with a sharp increase in divorce rates. Societal acceptance of single motherhood in general has led to societal acceptance of unmarried teenage mothers (Brown & Brown, 2006).

Another contributing factor to an increase in risky sexual behaviors in the U.S. among teenagers, and subsequent increase in adolescent pregnancies, can be linked to a drastic change in American culture over the past 50 years. In the early 1900s and until the 1960s a sexually restrictive culture was present in the United States. In a sexually restrictive culture premarital chastity is expected of at least one gender, usually the women. Sexuality tends to be avoided and feared in a sexually restrictive culture for the potential problems it may lead to (Brown, 2000).

From the 1960s through the 1980s, the U.S. became a sexually permissive society. This type of culture allows for sexual tolerance and loose enforcement of sexual restrictions. In a sexually permissive society adolescent sexual activity and premarital sex is considered a normal part of life. Sexually transmitted diseases, including Human Immunodeficiancy Virus (HIV), became epidemic in the U.S. during this period. More recently, conservative American culture has leaned toward a more restrictive approach to sexuality (Brown, 2000).

America has seen a rise in pregnancy to unwed teenagers since 1960. Data from the CDC (2011) shows 14.8% of births to teen mothers occurred out of wedlock in 1960.

The rates skyrocketed in the U.S. during the 1960s. The CDC reports 86.7% of birth to teen mothers in 2008 occurred out of wedlock.

Teenagers receive information about sexuality from many sources including family, peers, society, and the media. U.S. society is multicultural. This mix of cultural and other influences can be confusing to youth. Clear messages concerning acceptable sexual behaviors from family can help to alleviate much of this confusion. Many parents fail to embrace this responsibility and leave their children open to other influences (Brown & Brown, 2006).

Mass media often blends differences among the many different cultures that this society includes. American adolescents are exposed to nearly 14,000 sexual innuendoes, behaviors, and sexual references annually on television (TV) and via the Internet. Less than 175 exposures refer to abstinence, contraception, sexual risks, or responsibilities (Brown, 2000). According to Brown (2000), studies have shown a link between the impact of seeing sex on TV and early sexual activity or unprotected intercourse.

While statistics show an increase in the percentages of teen births to unwed mothers in the U.S., multiple studies show that there has been a decline in the number of pregnancies in the 15-19 year old age group in the U.S. since 1991 (Hillard, 2005). Education encouraging abstinence and postponement of sexual activity likely play an important role in this decrease, as does educating teenagers on methods of effective birth control and making those methods readily available. Many teens are not motivated to remain abstinent. Twenty percent of all 15 year olds in this country have had sexual intercourse (Hillard).

Statistics from the National Campaign to Prevent Teen and Unplanned Pregnancy (2011) reveal an estimated cost of $9.1 billion in 2004 to taxpayers for teen pregnancy. These costs are figured in terms of lost tax revenue, incarceration of sons of teen parents, child welfare services, and health care costs.

Teen pregnancy affects the lives of all involved. The adolescent mother faces multiple changes and life challenges related to pregnancy and parenting, as does the father to a lesser degree. The infant child of an adolescent mother is apt to bear a lifetime of difficulties. Society, too, is victimized by teen pregnancy. According to Hillard (2005):

> Babies born to teen mothers are more likely to be premature and of low birth weight with the myriad of medical problems that entails, less likely to finish high school and more likely to do poorly in school, more likely to be abused or neglected. The sons are more likely to go to prison, and the daughters are more likely to themselves be teen mothers. Two thirds of families begun by unwed adolescent mothers live in poverty; almost half of all teen mothers and more than three quarters of unmarried teen mothers receive welfare within 5 years of the birth. Teen childbearing costs taxpayers approximately $7 billion per year in direct costs for health care, foster care, criminal justice, public assistance, and lost tax revenues. (p. 486)

Adolescent pregnancy is a complex issue and it is important for healthcare providers to acknowledge and understand many teens lack of desire to prevent pregnancy in hopes of finding ways to effectively educate at risk adolescents about the colossally negative consequences of teen pregnancy. Data from the National Center for Health

Statistics shows a record low of births to women aged 15-19 in 2009. In 2006 and 2007 teen birth rates increased in the U.S. by 1% each year. There was a 2% decrease in teen birth rates in 2008. Teen pregnancy rates are ever changing. Reasons for the fluctuations are not yet known (CDC, 2010).

By exploring the attitudes and beliefs of unmarried pregnant adolescents in relation to decision-making, sexual attitudes, and future expectations nurses working with youth may be able to develop new and innovative methods to effectively educate teens to avoid risky sexual behaviors and early childbearing (Perper, Peterson, & Manlove, 2010). Progress is being made in reducing teen pregnancy rates in the U.S. It is important for nurses working with youth to continue to contribute to this effort through ongoing research and innovative education.

Statement of Problem

Sexually active teenagers are at high risk for pregnancy which can alter the course of their lives drastically, as well as burden the nation's economy. In the U.S., adolescent pregnancy rates are two to three times higher than those in Canada and Europe, and eight times higher than in the Netherlands and Japan. Nearly one third of American women will have experienced pregnancy by age 20 (Hillard, 2005). Though the incidence of teen pregnancy has declined, still approximately 820,000 adolescent pregnancies occurred in 2003 in America, 57% of those resulting in live birth (Hillard).

Purpose of Study

The purpose of this study is to explore the attitudes and beliefs of unmarried pregnant adolescents in relation to decision-making, sexual attitudes and future expectations.

Research Question

How do attitudes and beliefs of unmarried pregnant adolescents affect decisions about sexual activity, contraception, and future expectations regarding parenting?

Organizing Framework

A naturalistic, qualitative design will serve as the framework for this study. This framework is appropriate for the study because qualitative research evolved from the behavioral and social sciences as a technique to generate knowledge about human nature. Naturalistic qualitative inquiry is used to gain awareness and comprehension of social-behavioral human experience as it is lived (Guba & Lincoln, 1981). In naturalistic inquiry research is conducted in real-world settings without attempts at manipulation of participants, events, or settings (Patton, 2002).

Limitations

The major limitation of this study is utilization of a small sample size recruited from one particular geographic area. Participants will not be selected randomly but will be recruited using specific, limiting criteria. The number of participants in this study will be too small to be representative of the entire American population of pregnant teenagers. Though lived experiences may be similar among participants they cannot be generalized to the population at large.

Assumptions

Naturalistic inquiry focuses on multiple levels of realities that complement one another. Each level represents a variant of reality. One level cannot be considered truer than another. Levels cannot be understood as separate but rather are intricately interrelated to form a whole pattern of truth. These patterns must be sought for the sake

of understanding. Differences, as well as similarities, are taken into consideration (Guba & Lincoln, 1981).

Summary

Sexually active adolescents are at high risk for pregnancy and associated negative consequences for the teen mother, the child, and other family members. Society at large is greatly affected by the prevalence of teen pregnancy. Nurses who work in areas of family and adolescent health have unique opportunities to influence youth behaviors. By understanding decision making regarding contraceptive behavior, sexual attitudes, and future expectations of pregnant teenagers nurses who work with teens can develop effective preventative programs to help adolescents avoid early childbearing.

A naturalistic, qualitative design will serve as the framework for this study. Naturalistic inquiry is done to acquire understanding and gain insight into the human experience in an uncontrolled, real-life setting (Spear, 2004). A total of 10 English speaking unmarried pregnant women between the ages of 13-19 who are choosing to continue their pregnancies and parent will be recruited from a faith-based urban clinic in central Indiana to participate in the study. Participants will be interviewed regarding sexual decision making, contraceptive behavior, sexual attitudes, and future expectations.

The purpose of this study is to increase understanding of pregnant unmarried teenage women in regards to their attitudes and beliefs about pregnancy and motherhood as they live the experience. This is a replication of Spear's (2004) study.

Chapter II

Review of Literature

Introduction

Nearly half of all first births in the United States occur to unmarried teenage women. Adolescent pregnancy is often associated with extended hardships for the mother and child. Family members and society at large also pay a huge socioeconomic price to rear children of unwed mothers to adulthood. Education regarding sexual health is usually targeted at pregnancy and disease prevention. As important as pregnancy and disease prevention are, many researchers have begun to explore personal perspectives of unmarried pregnant teenagers in regards to decision-making, contraceptive behavior, sexual attitudes, and future expectations. Considerations of thought processes associated with a teenager's decision to be sexually active are being explored as are phenomena regarding apathy among many adolescents toward pregnancy and childbearing. With better understanding of decision-making regarding contraception, risky sexual behavior, and future expectations among teenage women effective nursing interventions may be developed to aid in teen pregnancy prevention.

Organization of Literature

The literature review consists of selected articles that focus on adolescents' decision making processes related to sexual behavior, pregnancy, and pregnancy prevention. Supportive literature is divided into four sections: (a) organizational

framework; (b) adolescent female's attitudes toward contraception, pregnancy, and parenting; (c) relationship based decision making; and (d) effects of assets and goals on sexual decision making.

Organizing Framework

A naturalistic, qualitative design will be used as the framework for this study. Qualitative study aims to describe, give meaning to, and understand life experiences using a systematic, interactive, and subjective approach. A naturalistic paradigm utilizes field study as a primary technique observing and interacting with study participants in a real life environment. Active involvement with others as they live their experiences produces conclusions about what is important in those experiences. Qualitative research in nursing is effective for analyzing emotional responses and focuses on discovery and understanding of the whole situation or person under inquiry. Discoveries from qualitative study may be used to identify relationships among the variables. Relational statements can be used for theory development (Burns & Grove, 2005).

Qualitative data may be obtained through unstructured observation and interviews with no attempt by the researcher to control the interaction. The researcher sorts and organizes data looking for meaning (Burns & Grove, 2005).

A naturalistic paradigm utilizes field study as a primary technique. Active involvement with others as they live their experiences produces inevitable conclusions about what is valuable, vibrant, and pervasive in those experiences. According to Guba and Lincoln (1981), naturalistic inquiry is more useful in matters concerning social

behavioral investigation than is scientific inquiry. Scientific inquiry relies on experimentation as a fundamental technique and views truth as confirmable (Guba & Lincoln, 1981).

In qualitative data collection open-ended questions are asked via in depth interviews capturing direct quotations about lived experiences, perceptions, and expectations. Reality of participants is documented in their own words and information compiled. Whatever emerges is important to understanding human experience (Patton, 2002).

This study will explore lived experiences of unmarried pregnant adolescents. Unmarried pregnant teenagers will be recruited from a faith-based urban clinic in central Indiana. Participants will be interviewed individually with researcher encouraging openness to emerging themes. An interview guide will be utilized by the researcher during each data gathering session. Recorded interviews will be conversational allowing participants' an opportunity to respond to guiding questions in a relaxed atmosphere. Semi-structured questions will provide guidance to cover important areas of interest related to this topic. These questions will help focus client responses and discussion related to topics such as "What is it like to be an unmarried pregnant teenager?" Data collection will continue until themes emerge and saturation has been achieved.

Within 48 hours following data collection interviews will be transcribed word for word by the researcher and pertinent notes documented. Transcripts will be read repeatedly looking for meaning and story lines.

Adolescent Female's Attitudes toward Contraception, Pregnancy, and Parenting

Bruckner, Martin, and Bearman (2004) examined the relevance of attitudes toward pregnancy and how attitudes influence contraceptive use in the adolescent population. The authors examined sexually active female adolescents after receiving a negative pregnancy test. The goal of this study was to understand why there is ambivalence among adolescents regarding pregnancy and pregnancy prevention. The purpose of this study was to determine if sexually experienced adolescents attitudes about pregnancy influence the risk of becoming pregnant.

Data for this study was taken from the National Longitudinal Study of Adolescent Health (Add Health). Add Health is a nationally representative study conducted in December, 1995. The Wave 1 phase of this study consisted of in home interviews administered to 20,745 adolescents. Detailed information was collected about risk behaviors, sexual relationships, family dynamics, aspirations, attitudes, and activities. In Wave 2 of the study interviews were conducted, excluding high school seniors, with a final sample of 14,738 adolescents who participated in both interviews. Participant's ages ranged from 15-19. Females participating in both interviews were eligible for inclusion in this study. Exclusion included girls younger than 15, married adolescents, and 138 females who were missing information on pregnancy attitudes or sexual history. The final sample of adolescent females cited in the study totaled 4,877 (Bruckner et al., 2004).

Measures for study included bivariate and multivariate analysis of attitudes toward pregnancy and how those attitudes effect consistency of contraceptive use. Attitudes towards pregnancy were evaluated using a series of five questions, such as "if

you got pregnant, you would be forced to grow up too fast" with response categories of strongly agree, agree, neither agree nor disagree, disagree, and strongly agree (Bruckner et al., 2004, p. 250). The five responses were averaged into a single pregnancy attitude index. Background characteristics, sexual behavior, contraceptive use, and contraceptive knowledge were also assessed and measured.

Of the 4,877 respondents, 57% had mainstream attitudes (neither antipregnancy or propregnancy, and not ambivalent), 20% had antipregnancy attitudes, 8% were propregnant, and 14% displayed ambivalency toward pregnancy. Significant differences were found among the four groups. Antipregnancy respondents had the greatest social advantages and personal assets, such as maternal closeness, maternal education, cognitive ability, and self-esteem, followed by mainstream, then ambivalent, and finally propregnancy respondents (Bruckner et al., 2004).

In regards to pregnancy attitudes and consistent contraceptive use, a significantly greater number of non-users reported ambivalency toward pregnancy than did inconsistent users (17% versus 10%). Other factors that were found to lead to increased odds of inconsistent contraceptive use included a greater number of sexual partners as well as below average or very high cognitive ability. The most intelligent sexually active teenagers were likely to have risky sex behaviors as were girls with below average intelligence. Overall, pregnancy attitude was not a significant factor to contraceptive use. Risk status was the only significant factor in the consistent use of contraception. Being low-risk increased the chances of inconsistent contraceptive use, and being high-risk made users less likely to be consistent contraceptive users. Middle-risk adolescents were most likely to be consistent contraceptive users (Bruckner et al., 2004).

Participants who became pregnant between Wave 1 and Wave 2 of the study varied widely from girls who did not. On average, pregnant respondents were more likely to be black or Hispanic, to have lower maternal closeness and cognitive ability scores, and mothers with low levels of education. Pregnant respondents were also more likely to have had a prior pregnancy and less likely to have used contraception, with only 15% reporting having done so. Pregnant respondents reported to be knowledgeable about contraception but were more apt to have answered questions about pregnancy avoidance incorrectly (Bruckner et al., 2004).

Bruckner et al. (2004), through multivariate analysis, found that attitudes toward pregnancy did not significantly alter the risk of pregnancy in sexually active adolescent females. Likewise, pregnancy attitudes do not influence pregnancy outcomes via contraceptive behavior in this age group. What was determined is that attitudes toward contraceptive use are the most important element for reducing adolescent pregnancy. To reduce the number of adolescent pregnancies interventions need to target attitudes toward contraception more than attitudes toward pregnancy. Though many existing programs aim to change attitudes toward teen pregnancy results indicate that existing programs may fail to change risky sexual behavior in the first place.

Though recent declines in the incidence of adolescent pregnancy in the U.S. proved encouraging, Spear (2004) continued to study high teen pregnancy rates. The behaviors of sexually active female adolescents in regard to birth control and pregnancy have not been adequately researched, according to Spear. The purpose of this study was to explore the lived experiences of the adolescent female in regards to birth control and pregnancy.

Study participants were students in an alternative girl's school and had to meet the following criteria:

1. 13-19 year old pregnant female
2. member of any ethnic group
3. English speaking

Eight students met requirements and consented to be in the study. All but one of the participants was African American, all were unmarried, one lived with both biological parents, one lived with boyfriend and mother, and one lived with mother and stepfather. The other five pregnant teens lived with mothers. Three of the participants had positive and regular interaction with fathers. All of the participants stated intent to keep babies. The babies fathers ranged in age from 16-21 years old. Two of the participants had been pregnant before and had spontaneously aborted those pregnancies (Spear, 2004).

Interviews lasted approximately 1 hour and were conversational allowing participants to talk freely. Each girl was interviewed individually and audio taped in a private room on campus while school was in session. Leading questions were used such as "Tell me about the day you found out you were pregnant; what did you do?" (Spear, 2004, p. 339). Data gathering proceeded until categories surfaced and informational redundancy was achieved. The interviews were transcribed within 48 hours and converted to manuscripts (Spear).

Small pieces of information that were important aspects of the participants' stories were identified. The pieces of information were sorted into categories. An experienced qualitative researcher audited the study throughout the process. Nine general categories for study were identified from the personal narratives as follows:

1. decision making
2. contraceptive behavior and sexual attitudes
3. attitudes of self and others about pregnancy
4. interpersonal relationships
5. self-perception
6. personal change
7. fears
8. responsibility
9. future expectations (Spear, 2004, p. 340).

The authors focused on contraceptive behavior and sexual attitudes, decision making (relative to pregnancy resolution), and future expectations. The eight participants discussed human experiences and had similar life stories. The participants were not in stable relationships, did not consistently use birth control, and most did not come from secure family situations (Spear, 2004).

Concerning contraception and sexual attitudes Spear found that birth control pills and condoms were the only methods of contraception mentioned by the participants. The young women claimed to be knowledgeable about available birth control having learned about it in school. Knowledge did not translate into effective or consistent contraceptive practice. Typical statements made by the participants were "I wanted to have a baby" and "I'd forget (to take birth control pill), I'd be busy doing other things" (Spear, 2004, p. 342). Laissez-faire comments indicated an indifferent attitude toward pregnancy prevention (Spear).

The researcher concluded through cross case analysis of the narrative data that participants' had similar attitudes toward pregnancy and life circumstances. Decisions of pregnancy continuation were based on desires to please mothers and to comply with social, cultural, and familial influences (Spear, 2004).

Participants consistently declared knowledge of birth control methods but did not consistently use available contraception. Caucasian (56.8%) and Hispanic (53.5%) youth were significantly less likely to use condoms than were African Americans (67.1%). Indifferent statements regarding sexual activity and pregnancy indicated ambivalence toward or desire for pregnancy (Spear, 2004).

Most responses indicated participants viewed sexual activity as expected and acceptable behavior while concurrently feeling guilt and regret. The author stated this may be related to mixed social and cultural messages regarding abstinence, safe sex, and availability of contraceptives, as well as bombardment with sexual innuendoes and images (Spear, 2004).

All participants would be able to meet the challenges of single motherhood with family support. Though most participants had little or no support from biological fathers all participants expected the males who had impregnated them to be actively involved in the children's lives. All participants planned to complete high school (Spear, 2004).

In conclusion, sexual attitudes and contraception simultaneously affect behaviors resulting in pregnancy. With better understanding of the learning needs of adolescents, effective programs can be developed emphasizing positive outcomes related to avoidance of early sexual activity and adequate methods of birth control (Spear, 2004).

In order to develop interventions that might help to decrease the incidence of teen pregnancy, it is important for health care professionals to understand why pregnant teens frequently report pregnancy to be unintentional when contraceptives are easily obtained before conception. Stevens-Simon, Sheeder, and Harter (2005) conducted a study to determine why it is difficult for adolescents to consistently use contraceptives to prevent unwanted pregnancy when most knew how to obtain and use contraceptives. Two possible explanations are given:

1. The strong physiologic predisposition to conceive makes avoiding pregnancy different from avoiding most other socially proscribed behaviors during adolescence...even closely watched teenagers who go to school and plan to pursue professional careers often become pregnant by default.
2. In the resource-depleted communities where teen pregnancy is endemic, early childbearing is only weakly linked to social deviance and health risky behavior. (Stevens-Simon et al., 2005, p. 57)

This study was conducted in a southwestern metropolitan area at three urban teen clinics, two located in neighborhood health centers, and one hospital-based. Participants were sexually active females less than 20 years old who had never been pregnant, and had presented to the clinic requesting a pregnancy test. All participants had negative pregnancy tests at the time of enrollment in the study. Females selected for the study were at high risk for conception because during the last four experiences of heterosexual vaginal intercourse had used unreliable birth control methods such as withdrawal, douching, or rhythm, or had used no contraception at all. Participants claimed not to want to become pregnant. A total of 351 teenagers participated in the study, with an

average age of 16.4 years. The study population was racially and ethnically diverse (Stevens-Simon et al., 2005).

A self-administered questionnaire was completed by each participant at the time of enrollment into the study. The questions asked were written at a fifth grade reading level and were in regards to teen pregnancy risk factors. Questions asked if there was a desire to remain non-pregnant, deterrents to use of contraceptives, expectations about the effects of childbearing and future contraceptive plans. Risk factors were coded as 1(present) or 0 (absent). Independent variables (risk factors) were coded on a Likert scale from 1 to 3 in a Factor 1 list, and from 1 to 4 in a Factor 2 list. A score of 1 indicated a negative effect was expected, and 3 or 4 indicated more positive anticipations. Independent variables in the Factor 1 list included assessments of future plans, self-esteem, autonomy, boyfriend relations, and need for babies. On the Factor 2 list independent variables consisted of assessments of family relations, being like other women, and liking for babies (Stevens-Simon et al., 2005).

Results showed that while only 3% of the participants actually wanted to be pregnant, only 48% wanted to remain non-pregnant. Also found were indications that few respondents were fearful of contraceptive use or side effects, had boyfriends who discouraged contraceptive use, or believed that contraception was unnecessary. Approximately half of the participants had used contraception with first sexual intercourse, but only 36% had used contraception at last intercourse. Most (83.5%) planned to improve contraceptive behavior in the future (Stevens-Simon et al., 2005).

The authors also found that many teens presenting for pregnancy testing did not adequately contracept, and did not anticipate that childbearing would be detrimental to future plans, self-esteem, autonomy, or boyfriend relations. The study failed to adequately explain why teenagers not desiring pregnancy and with access to safe contraceptives often fail to take the steps necessary to prevent pregnancy. The findings showed that, in addition to current pregnancy prevention programs for teens encouraging to stay in school and develop future-oriented career plans, an equivalent amount of intervention time should be spent ensuring that sexually active teenagers have concrete, personally relevant reasons to believe that pregnancy during adolescence could seriously interfere with the achievement of economic self-sufficiency and educational and career goals (Steven-Simon et al., 2005).

Over one-third of all teen pregnancies end with abortion. Many continued teen pregnancies result in delayed prenatal care, poor prenatal health behaviors, and low birth weight infants. Infants born healthy to teenage mothers have an increased risk of post neonatal death. Strong emphasis has been placed in recent years on developing programs to help prevent adolescent pregnancies (Rosengard, Pollock, Weitzen, Meers, & Phipps, 2006). The purpose of this study was to examine what teenagers believe about teen pregnancy in an effort to understand the perceptions of adolescents in regards to the advantages and disadvantages of teen pregnancy. The ultimate goal was to find ways to enhance teen pregnancy prevention efforts (Rosengard et al.).

Rosengard et al. (2006) undertook this qualitative study to examine what pregnant teenage girls' views are of the advantages and disadvantages of giving birth during the teen years. During the initial prenatal care visit, a total of 247 pregnant adolescent girls

were recruited at the Women's Primary Care Center at Women and Children's Hospital of Brown University School of Medicine in Providence, Rhode Island. The participants ranged in age from 12-19 years old. Initially a research nurse or trained research assistant interviewed participants using a structured questionnaire. The questions measured demographics, pregnancy intentions, feelings/reactions about pregnancy, decision making process regarding pregnancy, birth control use, support systems, living situation, sexual experiences, school, extracurricular activities, previous pregnancies, substance abuse issues, and abuse history (Rosengard et al.). Following the interview a 1 page questionnaire was presented with open ended questions regarding perceived advantages and disadvantages of teen pregnancy. Participants were asked to provide written answers. Patterns and themes were identified that were associated with age groups (12-15 years, 16-17 years, and 18-19 years), ethnicity (Hispanic versus non-Hispanic), intended versus non intended pregnancy, previous versus no previous pregnancy, and children versus no children (Rosengard et al.).

The main themes found in response to questions regarding advantages included:

1. No advantages, for example no different than being pregnant later
2. Connections, for example love of babies, someone to love me
3. Benefits/positive changes, for example growing up, purpose in life
4. Young and energetic, getting pregnancy over with

The main themes identified in regards to disadvantages of pregnancy included:

1. No disadvantages, for example same as pregnancy later
2. Lack of/insufficient preparedness, for example financially unstable
3. Changes/interference, for example missing out on teen years

4. Others' perceptions, for example shame (Rosengard et al., 2006, pp. 505-507)

Findings of the study by Rosengard et al. (2006) indicated that teens did identify more disadvantages than advantages to teen pregnancy. Differences in themes were clearly identified among different ages and different ethnic backgrounds, indicating a need to target interventions to specific groups with specific needs.

The importance of contraceptive use in preventing teen pregnancy can and should not be avoided. Little attention has been given to current trends in methods of contraception used by adolescents and the effectiveness of such methods. Santelli, Morrow, Anderson, and Duberstein (2006) conducted a study to examine trends in contraceptive use that contributed to the decline in pregnancy rates among adolescents between the years 1991-2003. The framework for this study was the Pregnancy Risk Index (PRI), a mathematical method for calculating pregnancy risk using behavioral data.

Data on contraceptive use and sexual behavior were collected from the national Youth Risk Behavior Survey (YRBS) and published contraceptive failure rates. Since 1991 the YRBS has been conducted by the Centers for Disease Control and Prevention (CDC) semi-annually. The YRBS uses a national sample frame of public and private schools to determine a probability sample of youth in grades 9-12. Individual states and some large cities are sampled separately. For this study a national sample of enrolled students in public and private high schools in grades 9-12 was used. The sample was taken from both large and small cities using a paper and pencil questionnaire. A three stage, stratified, clustered sample was used and minority youth were oversampled to produce national estimates. The target population in this study by Santelli et al. (2006)

was comprised of sexually active high school men and women ages 15-19 years living in the U.S. No ethnic groups were excluded from the study.

Data from every YRBS through 2003 were analyzed and provided estimates on use of condoms and other contraceptives at last intercourse based on two closed ended questions: "The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy?" (Santelli et al., 2006, p. 107), and "The last time you had sexual intercourse, did you or your partner use a condom?" (Santelli et al., 2006, p. 107). For the purposes of this study, sexually active youth are defined as having had sexual intercourse within the last 3 months. From this data, estimates for use of condoms and of other contraceptives at last intercourse were derived. Prior to 1999 condom and oral contraceptive use were included in the study. Injectable contraceptives were added to the list in 1999. Only the pill and injectables were included as response categories referring to hormonal methods. To describe the effectiveness of specific contraceptive methods published first year failure rates (pregnancy per 100 women) from the National Survey of Family Growth were used. Contraceptive failure rates varied significantly by method, race, and ethnicity. Method specific rates for teenagers were similar to rates for women over all (Santelli et al.).

A Pregnancy Risk Index (PRI) was calculated for each survey year by summing the results of each method specific failure rate and the number of women using it. Non-use of contraception was considered a method with a specific risk of pregnancy. From this data, pregnancy risk resulting from use and non-use of various contraceptives over the 12 year study period was measured. To test for significance of difference in rates of

use for the various contraceptive means t tests were performed. All differences reported in the study were significant at $p<.05$ (Santelli et al., 2006).

The findings by Santelli et al. (2006) revealed many changes in the use of contraceptives among teens over a 12 year period from 1991-2003. Withdrawal declined from 19% to 11% and no method use dropped from 18% to 12%. Also used less frequently was the pill, dropping from a 25% usage rate to 20%. This decline was offset by the use of injectibles, which was 5% in 2003. The use of condoms alone or with another method increased from 38% to 58% during the period studied. Dual use contraception, that is condoms and hormones, was up from 3% in 1991 to 8% in 2003 with men reporting an increase in condom use from 55% to 69%. Men reported declines in use of withdrawal from 15% to 7% and no method from 14% to 9%. The risk of pregnancy among sexually active teen women decreased 21% over the twelve year period.

Similar trends were found for the three most common racial groups. Types of contraceptives used differed significantly for each grade, 9th thru 12th. Pregnancy risk was highest for 9th graders. But between 1991 and 2003 the pregnancy risk score fell 28%. In 2003, 46% of teen pregnancies resulted from failure to use a method, compared with 54 % in 1991, and 54% from contraceptive failure in 2003, compared to 46% in 1991. Results are compatible with the number of sexually active highschoolers who use contraceptives (Santelli et al., 2006).

The authors showed the risk of pregnancy among sexually active teenage women to have declined 21% from 1991-2003. The decrease is primarily the result of a trend toward increased use of condoms, as well as a decreased use of withdrawal and no

method at all. Trends toward dual use contraception suggest an increasing number of teenagers are seeking protection against pregnancy (Santelli et al., 2006).

The adolescents' decision making process regarding childbearing has received limited attention. Decision making is usually referred to as a rationale model assuming costs and benefits are weighed in order to make a choice. Adolescents may not have enough information and life experience to make rational decisions regarding pregnancy prevention, childbearing, and parenting, according to the author of this study, Bender (2008). The author conducted a qualitative study to explore the decision making process of three pregnant teenagers about pregnancy, childbearing, and parenting. Participants were selected with the help of social workers at Landspitali University Hospital in Iceland. Participants had applied for an abortion. The young pregnant women had decided not go ahead with an abortion and therefore were likely to be struggling with the decision to have a child. The three participants were 15, 17, and 20 years old and differed in terms of family type and boyfriend relationships.

Interviews were conducted to define factors involved in choosing to continue pregnancy. The girls were asked to write down thoughts about the pros and cons of having a child. The answers were discussed. Each participant was interviewed three times. Factors investigated included the decision not to use contraceptives, acknowledgement of the pregnancy, formulation of alternative outcomes, consideration of options, commitment to choice and adherence to decision, benefits of childbearing, views of motherhood, how participants envisioned the future with the child, and self-descriptions and goals before and after pregnancy awareness. Differences and similarities between participants were identified (Bender, 2008).

Bender (2008) provided cross case comparisons. All of the girls perceived benefits of childbearing that included: positive feedback, increasing attention received, strengthening boyfriend relationship, reducing or stopping smoking and drinking, being more mature as mothers, desiring to own something, wanting to be important to someone, giving purpose to life, feeling that children are a blessing, making everyone happy, and excitement about becoming a new family.

All of the participants also encountered negative thoughts about childbearing. Negative thoughts included: feeling great responsibility, losing friends, losing educational opportunities and other future opportunities, receiving negative feedback from some peers, losing freedom, increasing tiredness, and fear of losing boyfriend. Statements such as "it is less likely my dreams will come true," and "everything will change," emerged (Bender, 2008, p. 875).

Ambivalence about pregnancy, childbearing, and motherhood became apparent. Feelings of joy about having a precious baby were experienced one minute, then fear about the overwhelming responsibility of motherhood and losses of freedom the next minute. Uncertainty about the future, and the changes that would occur were repeatedly expressed by all participants (Bender, 2008).

The oldest girl, a 20 year old, had explored alternatives most extensively, and the youngest at 15, the least. The author found that the 20 year old showed the most ambivalence in exploration of alternatives, but also in the end, was the most content with decisions suggesting that ambivalence in and of itself may be of benefit to the decision making process. All of the girls did not want to be pregnant, yet none were using

contraceptives with sexual intercourse. The author concluded that teenage girls are ambivalent about having a child but that ambivalence may play a beneficial role in the decision making process for adolescents (Bender, 2008).

According to Fantasia (2008), teenage pregnancy in the U.S. is down 36% since its peak in 1990. The United States continues to have the highest teenage pregnancy rate of any developed country. The use of contraception by adolescents is reported to be at an all-time high with 83% of sexually active females and 91% of sexually active males using contraception at last intercourse (Fantasia).

Fantasia (2008) through concept analysis and literature review provided clarification of the concept of adolescent decision-making as it pertains to sexual activity and risk taking. Articles' defining attributes of sexual decision-making from nursing, psychology, and sociology sources were reviewed. Search terms included: adolescents, teens, college-aged, young adult, sexual decision-making, sexual activity, risky sexual behavior and unprotected intercourse. The following six main themes emerged as major contributors to the phenomena of adolescent decision making regarding risky sexual behavior and contraception:

1. Desire for intimacy—desire, sexual attraction, and a want to be loved or cared about influenced many adolescents' decision to enter a sexual relationship.
2. Perceived relationship safety—frequently adolescents miscalculated the level of risk they were taking by not consistently practicing contraception.
3. Problem solving—decreased ability with problem solving skills have emerged as a predictor of early sexual activity.

4. Family and peer influence—peer influence during adolescence often sways individuals to initiate sexual intercourse.
5. Concern for pregnancy or sexually transmitted infection (STI)—frequently teens reported that they did not believe that negative outcomes would happen to them.
6. Cognitive ability—lower intellectual ability correlated with decisions to have early intercourse (Fantasia, 2008, p. 86).

Fantasia (2008) concluded by stating that if nurses are to affect change in the area of adolescent decision making nurses must first have an understanding of the concepts related to such decisions. It is imperative that nurses assess adolescent sexual behaviors in detail, focusing specifically on the social, cultural, and psychological context in which sexual activity takes place. The author concluded that this assessment and intervention should be a part of every teen visit with nurses. Nurses working with teenagers need to assess sexually risky behavior and learn to educate, guide, and encourage their adolescent clients during the decision making process (Fantasia).

Relationship Based Decision Making

Manning, Longmore, and Giordano (2000) were interested in determining how the type of relationship adolescents have, for examples exclusively dating or casual acquaintances, with a sexual partner influences the couples choice of contraception. The authors analyzed contraceptive use and effectiveness as it relates to the adolescent couple, theorizing that effective contraceptive use is greater among committed couples. The purpose of this study was to describe the adolescents' decision-making processes

about contraception as a partner decision. According to the authors, contraception is not a decision made by just one member of the couple.

The sample was drawn from the 1995 National Survey of Family Growth (NSFG), a nationally representative sampling of 10,847 women aged 15-44. NSFG data provides information about women's relationships with the first sexual partner, social and demo-graphic characteristics of the first sexual partner, and factors such as birth control education, school and family background, and contraceptive choice at first sexual intercourse. The sample was limited to women who had first sexual intercourse prior to age 18. The sample was then limited to women who were 25 or younger at the time of the study. Finally, the sample was limited to women who provided complete information about key dependent variables, bringing the final sample size to 1,593 women (Manning et al., 2000).

Manning et al. (2000) addressed two questions about contraceptive use at first intercourse. The first question asked if any contraception was used. The second question asked what type of contraception was used, if any. Respondents were also asked questions such as:

> At the time you first had sexual intercourse, how would you describe your relationship with him? Would you say you had just met, were just friends, went out once in a while, were going together or going steady, or engaged? (p. 106)

Other questions included age at first intercourse, family structure, parents' education, religiosity, and school-related behaviors. Socioeconomic characteristics were measured, as well as if the male partner was older, younger, or the same age as the female (Manning et al., 2000).

Results showed that nearly 3 out of 10 women used no contraception at first intercourse. Larger numbers of partners in casual relationships used no contraception at first intercourse compared to couples in a steady relationship. With contraception at first intercourse condoms were the most frequently chosen method (82%). Condoms were used most frequently by adolescents who went out once in a while (82%), but used least by engaged couples (68%). The mean age of the respondents at first intercourse was 15. Most respondents were white and lived with two biological parents. Usually the age gap between partners was one to three years. Less than one-fifth of respondents had first sex with someone from a different ethnic group. Approximately 75% of respondents had birth control education prior to sexual activity (Manning et al., 2000).

In conclusion, Manning et al. (2000) found that when first intercourse occurred within the context of a romantic relationship, participants were significantly more apt to use birth control than if casually acquainted. The authors found that in casual sexual relationships condoms were the contraceptive method of choice for adolescents. In romantic relationships, oral contraceptives were more commonly used. Young women may have recalled the first sexual partner to have been more or less serious depending on later relationships and sexual encounters. Manning et al. determined a relationship oriented approach to choosing birth control methods may be more effective than focusing on one person involved in the sexual relationship.

Data consistently showed that nearly half of high school teenagers had been sexually active as of 2003 (Manlove, Ryan, & Franzetta, 2004). Manlove et al. believed there was a link between relationship type and contraceptive use in this population.

The purpose of this study by Manlove, et al. (2004) was to identify factors associated with effective contraceptive use in recent relationships. One focus of the study was to find out if teenagers who ever used contraception in the most recent sexual relationship differed from teens that never used contraception in the most recent sexual relationship. The second focus was to investigate whether teenagers who always used contraception in the most recent sexual relationship differed from teens who never or only sometimes used contraception in the most recent sexual relationship.

Data came from the National Longitudinal Study of Adolescent Health (Add Health). Add Health was a school based survey of U.S. adolescents in grades 7-12. Add Health was nationally conducted and involved three waves of in-home interviews with adolescents and parents addressing a wide range of questions about health behaviors, relationships, and parent-child interactions. Wave 1 took place in 1995 with 20,700 participants. Approximately 14,700 students were reinterviewed in Wave 2 in 1996, and 15,200 in Wave 3 in 2002. For this study, contraceptive use and characteristics of the participants' most recent sexual relationship was drawn from the Wave 2 survey, and individual/family background characteristics came from the Wave 1 survey (Manlove et al., 2004).

The sample was drawn from 5,023 teenagers who reported to be sexually experienced, unmarried adolescents, who participated in both surveys, and "had valid sample weights and partner specific information about sexual relationships" (Manlove et al., 2004, p. 5). Because interest was in teenagers with multiple lifetime sexual partners, 1,658 teenagers with only one lifetime partner were excluded. Also excluded were 1,612 adolescents whose first sexual relationship had occurred more than 18 months before the

start of the study, and 151 who had multiple partners but reported no sexual intercourse in the last 18 months. Another 125 teenagers were excluded due to incomplete or inconsistent partner-specific information. Ultimately 1,468 adolescents who reported 2-10 lifetime sexual partners were included in the study sample. Characteristics from participants' first and most recent sexual partnerships were examined (Manlove et al.).

Two questions were asked about adolescents' contraceptive use with the most recent sexual partner: "Did you or [your partner] ever use any method of birth control?" (Manlove et al., 2004, p. 267) and "Did one or the other of you use some method of birth control every time you and [your partner] had sexual intercourse?" (Manlove et al., p. 267). To answer the first question, comparisons were made among teenagers who had ever used contraception with individuals who had never used contraception in the most recent sexual relationship. To answer the second question, teenagers who had always used contraception were compared with teens that only sometimes had or never had used contraception.

Similar questions were used to examine characteristics of most recent partner and relationship, type of relationship (i.e. romantic or nonromantic), length of presexual relationship, number of couple like activities before first sex with most recent partner (i.e. going out together, exchanging verbal expressions of love, telling others they were a couple), and whether the couple had discussed birth control prior to having first sex. Other characteristics examined by Manlove et al. (2004) were presence or not of physical abuse in the relationship, duration of the sexual relationship, sexual history (i.e. age at first sex, consistency of contraceptive use, and total number of sexual partners).

A fourth category addressed the most effective method of birth control used during the relationship. Categories were: hormonal methods, condoms, other (i.e. IUD, withdrawal, rhythm, vaginal sponge, foam, jell cream, suppositories, diaphragm, contraceptive film or some other method) or no method. Family and individual characteristics were examined regarding family structure (i.e. two biological or adoptive parents vs. all others), and parent education. Individual characteristics described were ethnicity or race, cognitive ability determined by a self-reported score on a modified Peabody Picture Vocabulary Test, religious service attendance, and whether pregnancy and AIDS prevention education had been received in school (Manlove et al., 2004).

The majority of adolescents studied, 60% overall, reported consistent use of contraception in the most recent relationship, 20-21 % reported no use and 18-21% reported inconsistent use. Six percent met the partner as a stranger, a higher number of females than males reported the relationship as romantic (88% versus 72%). Four months was the average length of relationship before having sex. Females were more likely to report having discussed contraception. Both sexes reported physical violence in 1 of 10 relationships. Females reported 34% effectiveness with hormonal methods and males reported 58% effectiveness with condoms. Females reported more frequent religious service attendance than did males (Manlove et al., 2004).

Based on the results, Manlove et al. (2004) concluded that many relationship and partner characteristics were significant for females but not for males. Adolescents must use contraception consistently over time and across relationships, learning to negotiate

sexual and contraceptive decisions in each relationship. Pregnancy prevention programs need to include communication in curriculums as partner relationships are strongly associated with consistent use of contraceptives.

Effects of Assets and Goals on Sexual Decision Making

Darroch, Singh, and Frost (2001) reported that adolescent childbearing is more prevalent in the U.S. than in Great Britain, France, Sweden and Canada. The authors conducted this study to address differences between the five countries on adolescent pregnancy. A second purpose was to describe the extent of which current differences are associated with cross-country variations regarding sexual behavior and contraceptive use.

A collaborative approach was used to examine in-depth case studies in the five countries. A research team from each country was compiled to collect data. Each team prepared a report on births, abortions, and pregnancy rates from published vital statistics records and unpublished government data. Information on contraceptive use, timing of first births, and sexual activity came from recent surveys conducted by private organizations. Reports included a comparable set of tables on adolescent sexual behavior, contraception, birth, abortion, and pregnancy rates of teenagers within respective countries. The collaborative effort included two workshops and field visits by the study team leaders to each of the countries involved (Darroch et al., 2001).

Results showed the age of sexual debut among teens varies little between countries. American teens consistently reported higher incidence of no contraceptive use at first or recent intercourse than teens from other countries in the study and overall lower use of most reliable birth control. U.S. teens with lower educational and job aspirations

have more positive attitudes toward having a baby. American adolescents from poor and single-parent homes are more likely to have pregnancy than teens in higher socioeconomic groups (Darroch et al., 2001). Targeting teens from lower socio-economic groups for provision of information and services regarding prevention of pregnancy could result in significant gains in reducing unplanned adolescent pregnancy, concluded the authors (Darroch et al.).

Oman, Vesely, Aspy, McLeroy, and Luby (2004) stated that many teenagers become pregnant each year resulting in negative outcomes such as low birth weight, sudden infant death syndrome, and infant mortality. The purpose of this study was to investigate potential cumulative effects youth assets may have on youth sexual behaviors. The social development model, which identifies prosocial as well as antisocial behaviors in youth to explain risky sexual behavior, served as the framework for this study.

Information was collected from 1,350 randomly selected racially diverse households in the inner city areas of two large Midwestern cities. Youth asset scales were designed by the research team using "items with established reliability and validity from previous studies "(Oman et al, 2004, p. 13). Nine youth assets were measured for each teen participant. To be included in the analysis, youths must have had all nine assets measured. Reasons for exclusion included missing demographic data, race and ethnicity other that Non-Hispanic Caucasian, Non-Hispanic African American, Hispanic, or Non-Hispanic Native American, missing asset data, or missing outcome response. Assets measured were non-parental role models, peer role models, family communication, use of time (groups/sports), use of time (religion), community involvement, aspirations for the future, responsible choices, and good health practices (Oman et al.).

Cross-sectional data was collected by in-home, in-person interviews. One parent and one adolescent from each household were randomly selected to participate in interviews conducted with a computer-assisted data entry system. The final sample size consisted of 1,121 observations. Adolescent and parent were interviewed at the same time but in different rooms of the residence. Parent data were used to determine family structure, parent education, and income. Youth data were used to determine youth age, race, and gender as well as youth assets and sexual risk behaviors. Each teenager self-administered the "risk behavior questionnaire" (Oman et al, 2004, p. 13) by listening to tape-recorded items with headphones and entering responses into the computer. The questions assessed five sexual risk behaviors using questions recommended for pregnancy prevention research. The sexual behavior outcomes were coded so that 1=did not report risk factor and 0=did report risk factor (Oman et al.).

Results from the Oman et al. (2004) study indicated a significant trend showing students with a greater number of assets had a higher percentage of use of birth control with last sexual intercourse. Findings also indicated that rates of contraceptive use by sexually active youths increase as their assets increase. After an adjusted odds ratio, the odds of having used birth control at last sexual intercourse were 1.18 times higher for each increase of any one asset. The more assets youths had the higher likelihood of never having had intercourse. Similar findings were reported for teens that delayed sexual intercourse until age 17-19, teens not currently sexually active, and teens who had least number of sexual partners (Oman et al.).

The authors stated this is the first study to report significant relationships between youth sexual behavior and multiple youth assets. As the number of assets

increased sexually inactive youth were significantly less likely to have sexual intercourse. Also, with each increase in the number of assets, sexually active teens were more likely to delay first sexual intercourse until at least age 17 and to have used contraception at last sexual intercourse (Oman et al., 2004).

Conclusions suggest positive association of multiple assets with reduced sexual risk behaviors in youth. Reduction in teenage pregnancy may be achieved by targeting multiple youth assets in prevention programming (Oman et al., 2004).

Jumping-Eagle, Sheeder, Kelly, and Stevens-Simon (2008) conducted a study to examine good role models, religious beliefs, and strong family communications, and the effects on teen pregnancy incidence. Educational and lifestyle goal setting have been theorized to decrease the likelihood of risky sexual behaviors in teens. Jumping-Eagle et al. believed that unplanned pregnancies occur during the teen years due to a lack of negative expectations among some females in this age group regarding childbearing and parenthood.

The objective of this study was to describe the relationship between traditional goals, such as the desire to attend college, to pregnancy avoidance in adolescent girls. According to Jumping-Eagle et al. (2008) two hypotheses were explored:

> That some women with conventional educational and vocational goals do not believe that becoming pregnant during adolescence would make it more difficult to achieve their goals, and that women's belief that pregnancy would make it more difficult to achieve goals accounts for any positive association between educational and vocational goals and the intent to avoid adolescent pregnancy. (p. 75)

Jumping-Eagle et al. (2008) conducted this study at three urban adolescent health clinics in the Southwest. Two were in neighborhood health clinics, and one was hospital based. Inclusion criteria were: female, under age 20, sexually active, never been pregnant, had used a contraceptive method deemed unreliable, specifically rhythm, withdrawal, or douching, at least once in the last four sessions of heterosexual vaginal intercourse. The sample included 351 women.

The authors self-administered questionnaires to determine participants' goals, and to establish whether or not participants believed goals to be achievable. To assess goal status one question was asked regarding educational plans, and another asked about vocational plans. To determine if participants believed goals were obtainable, two questions were asked regarding how likely it was that each participant will reach stated educational/career goal. A five-item scale was used to determine perceptions of adolescent pregnancy as an impediment to goal ascertainment. Questions were presented as three statements, and respondents were asked to choose the one which represented feelings most closely. For example, in regard to school related goals, one question was composed of the following choices: "Having a baby now would make it hard for me to finish school" (Jumping-Eagle et al., 2008, p. 75), and "I go back and forth" (Jumping-Eagle et al., p. 75), and "Having a baby now would give me a reason to finish school" (Jumping-Eagle et al., p. 75). Responses were scored as 1, 2, and 3, respectively. Work related goals were assessed in the same manner (Jumping-Eagle et al., 2008).

To evaluate pregnancy avoidance five outcome variables were measured using a six-item, three point scale. Variables measured were contraceptive use at last sexual intercourse, intentions to avoid pregnancy, having an abortion if pregnancy occurred,

whether planning to use a highly effective prescription birth control method, and a composite index of the other four measures (Jumping-Eagle et al., 2008).

Social and demographic characteristics were included in the study. Race, age, living arrangement, sexual experience, and education were all included in analysis. Respondents' ages ranged from 10.8 to 19.6 years old with mean age of 16.4. Sixty-four percent aspired to go to college, and 58% planned to pursue employment in addition to motherhood. Eight in 10 respondents who had goals considered goals to be achievable, and only 4 in 10 thought pregnancy would interfere with goal achievement. Seventy five percent lived with parents. Only one in three had used birth control at last sexual intercourse and only half were positive they wanted to avoid pregnancy (Jumping-Eagle et al., 2008).

Bivariate analysis was used to analyze goals and pregnancy incidence among adolescents, as well as pregnancy avoidance attitudes, and behaviors. Teenagers with goals were less likely to be Hispanic, black, or Native American, and were more likely than teens without goals to have practiced contraception at last intercourse (Jumping-Eagle et al., 2008).

Findings from Jumping-Eagle et al. (2008) showed that 50% of adolescent women with educational and vocational goals did not believe that pregnancy would make it harder to achieve goals. Findings from the bivariate analysis were that teenagers with goals were more likely to have practiced contraception at last intercourse.

The authors concluded that future oriented educational and vocational goals may be less important than believing that childbearing during adolescence will likely make it more difficult to achieve those goals. Parents, teachers and others involved in the

healthcare and well-being of children should focus on helping young women to develop educational and vocational goals. It is also important to help female adolescents to understand that early childbearing could seriously interfere with opportunities to achieve goals (Jumping-Eagle et al., 2008).

Summary of Findings

Bruckner et al. (2004) studied the relevance of attitudes toward pregnancy and how attitudes influence contraceptive use in the adolescent population. The study purpose was to determine if sexually experienced adolescents attitudes about pregnancy influence the risk of becoming pregnant. Conclusions indicated that to reduce the number of adolescent pregnancies in the U.S. interventions need to target attitudes toward contraception because the use of adequate contraception strongly correlates with reduced pregnancy risk.

The Spear (2004) study purported to explore the lived experiences of pregnant adolescents in regards to pregnancy and birth control. The author focused on contraceptive behavior and sexual attitudes, decision making (relative to pregnancy resolution), and future expectations. Conclusions indicated that sexual attitudes and contraception simultaneously affect behaviors resulting in pregnancy. With improved understandings of learning needs and motivators of adolescents regarding sexual activity and future expectations more effective programs can be developed to enhance avoidance of early sexual activity and to promote adequate methods of birth control.

Steven-Simon et al. (2005) conducted research to determine why it is difficult for teenagers to consistently use contraceptives to prevent unwanted pregnancy when most knew how to obtain and use contraceptives. Conclusions stated that in addition to current

pregnancy prevention programs encouraging teens to stay in school and develop career goals, equivalent amounts of time should be spent ensuring that sexually active teenagers have concrete, personally relevant reasons to think that adolescent pregnancy could seriously interfere with the achievement of education and career goals, as well as future economic self-sufficiency.

The purpose of Rosengard's (2006) study was to examine what teenagers believe about teen pregnancy in an effort to understand the perceptions of adolescents in regards to the advantages and disadvantages of teen pregnancy. Differences in attitudes were clearly identified among different ages and different ethnic backgrounds indicating a need to direct interventions to specific groups with particular needs.

The study by Santelli et al. (2006) purported to examine trends in contraceptive use that contributed to the decline in pregnancy rates among adolescent females between the years 1991-2003. Data was collected from the national Youth Risk Behavior Survey and published contraceptive failure rates. From this data estimates for use of condoms and of other contraceptives at last intercourse were derived. Contraceptive failure rates varied significantly by method, race, and ethnicity. The overall risk of pregnancy among sexually active teenage women declined 21% from 1991-2003. The authors concluded that this study suggests an increase in the number of teenagers seeking protection against adolescent pregnancy as well as sexually communicable disease.

The purpose of Bender's (2008) study was to explore the decision making process regarding contraception, pregnancy termination, and childbearing among pregnant teenagers. All participants in this study had initially decided to abort and later decided to carry pregnancy to term. Throughout the study period all participants showed

ambivalence toward pregnancy and motherhood. The oldest study participant gave more thought to pertinent matters than did the younger ones indicating maturity may have been a factor in decision making. All participants did not want to be pregnant yet none were using contraceptives during sexual intercourse. The author concluded that all participants had significant ambivalence about pregnancy and child rearing indicating that ambivalence may play a beneficial role in the decision making process for adolescents. While this study gave a holistic view of the decision making process of pregnant adolescents it was limited by small number of participants and lacked globalism.

The study by Fantasia (2008) sought to explore and clarify the issue of adolescent decision making regarding sexuality. Results found multiple attributes including desire for intimacy, perceived relationship safety, problem solving ability, cognitive ability, family and peer relationships and concern regarding pregnancy or STI influence sexual decision making in adolescents.

The purpose of Manning et als (2000) study was to describe the adolescents' decision-making processes about contraception as a partner decision, and not a decision made by just one member of the couple. Authors concluded a relationship oriented approach to birth control method selection may be more effective than focusing on one person involved in the sexual relationship. This study supports the use of the social influence model of health behavior. The authors conclude current sex educational programs could be improved by supplementing information with the importance of social influence, specifically using a relationship oriented approach, on sexual and contraceptive decision making.

Manlove et al. (2004) believed there was a link between relationship type and contraceptive use in adolescents. The purpose of this study was to identify factors associated with contraceptive use in recent relationships. The authors concluded that many relationship partner characteristics were significant for females but not for males, and adolescents must use contraception consistently over time and across relationships. learning to negotiate sexual and contraceptive decisions in each relationship should be emphasized in pregnancy prevention programs as this study found a strong association between communication among sexual partners and consistent contraceptive use.

The study by Darroch et al. (2001) was done to address differences of teen pregnancy rates between five developed countries and to describe the extent current differences are associated with cross-country variations regarding sexual behavior and contraceptive use. Results showed the age of sexual debut among adolescents varies little between countries but American teens consistently reported higher incidence of no contraceptive use at first or recent intercourse. American teenagers from lower socio-economic groups had more positive attitudes toward having a baby. The authors concluded provision of information and services regarding prevention of pregnancy to teens from lower socio-economic groups could result in significant gains in reducing unplanned adolescent pregnancy.

Oman et al. (2004) investigated potential cumulative effects youth assets may have on youth sexual behaviors. Results of this study indicated a significant trend showing that students with a greater number of assets had a higher percentage of use of contraception with last sexual intercourse and rates of contraceptive use by sexually active teenagers increase as assets increase. Higher youth assets also resulted in

increased likelihood of never having had intercourse and delaying sexual intercourse until age 17-19, not currently sexually active, and fewer number of sexual partners. Conclusions suggest a positive association between multiple assets and reduced sexual risk behaviors in youth. Reduced teen pregnancy rates may be achieved by focusing on multiple youth assets in prevention programming.

Jumping-Eagle et al. (2008) studied the relationship between traditional goals and pregnancy avoidance in adolescent girls. Findings indicated 50% of adolescent women with educational and vocational goals did not believe pregnancy would make it harder to achieve goals. The authors concluded that future oriented educational and vocational goals may be less important than believing that childbearing during adolescence will likely make it more difficult to achieve those goals.

Chapter III

Methodology

Introduction

Sexually active adolescents are at high risk for pregnancy and associated long term implications for the adolescent, the family and particularly children born to unmarried adolescent mothers. The purpose of this naturalistic, qualitative study is to explore personal perspectives of unwed pregnant teenagers pertaining to decision-making, contraceptive behavior, sexual attitudes, and future expectations. This study is a replication of the Spear's (2004) study based on a previous qualitative study (Spear, 2001). This chapter contains research questions, setting, population, and sample. Information regarding protection of human subjects, procedure, data collection, and data analysis are also depicted here.

Research Question

How do attitudes and beliefs of unmarried pregnant adolescents affect decisions about sexual activity, contraception, and future expectations regarding parenting?

Setting, Population, Sample

The study will take place in Indianapolis, Indiana. Quota sampling will be employed to determine study participants. Participants will be recruited from a faith-based urban clinic specializing in the delivery of counseling and medical services to women experiencing pregnancy related crisis. Inclusion criteria are as follows:

(a) unmarried pregnant women between the ages of 13-19, (b) English speaking, (c) any ethnic group, (d) choosing to continue pregnancy and parent, and (e) in the first trimester of pregnancy. A total of 10 participants will be recruited. Recruitment will be limited to a twelve month period. Data collection will be completed within a 24 month period.

Protection of Human Subjects

A study proposal will be presented to the Ball State University (BSU) Institutional Review Board (IRB) and to the participating clinic Board of Operations (BO) for approval. The BO will be given the study for approval prior to agreeing to participate. Voluntary participation as well as the right to refuse to participate will be explained to members of the BO. Potential participants will be informed verbally and in writing about the purpose of the study. Anticipated time commitments will be explained. If candidates voluntarily choose to participate in the study written informed consent will be obtained by the participant's parent or legal guardian; or by the participant if they are 18 or 19 years old or an emancipated minor. Each study participant will receive a packet containing an explanation of the study, full disclosure of the study including potential risks and benefits, study tools and a consent form. Subjects will not receive compensation for their participation and will have the right to withdraw from the study at any time without penalty. The Health Insurance Portability and Accountability Act (HIPPA) will be strictly adhered to in order to protect participant privacy, confidentiality, and anonymity throughout the study. All data will be anonymous. Risks to the participant could include discomfort at answering personal questions. Benefits to the participant are the potential to help others as individuals and as a society.

Procedures

The researcher will educate clinic staff to identify potential subjects and will be available at the clinic at specified times to recruit participants. During recruitment, the researcher will personally explain to the study participant, purpose of the study, study objectives, and risks and benefits to the participant. Participants will be assured confidentiality. Once the researcher is satisfied that the participant fully understands her rights and role in regards to the study admission criteria will be validated and written consent obtained. The researcher will set appointments with participants to coincide with participants planned prenatal visits.

Method of Data Collection

Face-to-face in depth interviews will be conducted at each session with one researcher and one participant present. Participants will be interviewed individually at the clinic in a private room following prenatal visits at 3 months gestation, 5 months gestation, and 7 months gestation. Planned interviews will each last no longer than one hour. Interviews will be recorded and notations regarding participants' behaviors and interview dynamics will be made as deemed appropriate by the researcher. An interview guide will be utilized by the researcher during each data gathering session. Demographic information to include participant's age and gestation will be collected at the onset of each interview and verified by clinic records. Interviews will be conversational and participants will be encouraged to talk freely about their feelings, opinions, and experiences. Conversations during interviews will be encouraged to flow naturally with researcher refocusing topics as necessary. At the onset of each interview, the researcher will recite "This interview is being conducted as part of a process to help us find ways to

better understand thoughts and expectations of pregnant unmarried teenage women in regards to attitudes and beliefs of pregnancy and motherhood as the experience is lived. By gaining knowledge of pregnant teenagers' experiences we hope to be able to develop educational programs for teenagers that will aid in postponement of pregnancy. The interview will be recorded." Specific open-ended questions will be included in the interview guide and asked during interviews (Herrman, 2008). These questions are as follows:

1. What is it like to be an unmarried pregnant teenager in the U.S. today?
    a. What are the good things about being pregnant as a teenager?
    b. What are the hardest things about being pregnant as a teenager?
    c. What are some of your concerns about being a pregnant teenager?
2. What factors influenced your decision to be sexually active?
    a. What expectations did your family have for you regarding sexual activity?
    b. Tell me about your relationship with your baby's father at the time you got pregnant.
    c. Tell me about your relationship with you baby's father today.
3. What factors influenced your decisions to use or not to use birth control?
    a. What particular things were you concerned about regarding birth control?
    b. What concerns did you baby's father have about using birth control?

4. What factors influenced your decision to keep and parent your baby?
    a. What will be the best/easiest thing about being a teen mom?
    b. What will be the worst/hardest thing about being a teen mom?
5. Can you tell me what your expectations are for the future regarding your ability to provide for and parent your child?
    a. What is your plan for making money, a safe place to live, childcare if needed?
    b. Tell me about your baby's father's plan to help you.
6. How do you anticipate parenting will affect your personal goals for the future?
    a. What will you do if you want to go out with your friends?
    b. What are the things you don't think you will be able to do that you will want to do?
7. How do you think parenting will affect your job related goals for the future?
    a. What hopes do you have for education or training to prepare for a job/career?
    b. Tell me about the people who you think will help and support you.
8. In what ways do you expect the baby's father to participate in parenting the baby?
9. What was done or could have been done to keep you from getting pregnant?
10. What programs or services would be helpful to teens to prevent pregnancy?

11. If you could create a program to prevent teen pregnancy what would it be like?
12. Did you have an adult in your life who you felt comfortable talking to about pregnancy prevention and sexuality?
13. Is there anything else you want to say or talk about today?

Data collection will continue until categories emerge and informational redundancy is achieved.

Method of Data Analysis

Within 48 hours of each interview, the researcher will schedule time to review and expand notes taken during the process and to convert notes to manuscript form. Transcripts will be read and reread by the researcher to gain a general sense about the experiences of the participants and to identify major story lines. Questions for follow-up may be identified to be used in consecutive interviews. Peer review of the raw data as well as auditing throughout the duration of the study by an experienced qualitative researcher will be conducted.

Categories based on recurring patterns and topics will be identified within each participant's story. Those pieces of information will then be sorted into specific groups related to: (a) decision making, (b) sexual attitudes and beliefs, and (c) future expectations.

Summary

A naturalistic qualitative design will be used to conduct this study. Naturalistic inquiry is done in an effort to acquire understanding and gain insight into the human

experience in an uncontrolled, real-life setting (Spear, 2004). Participants will be interviewed regarding sexual decision making, contraceptive behavior, sexual attitudes, and future expectations regarding parenting issues and achievement of personal goals.

The purpose of this study is to enhance understanding of pregnant unmarried teenage women in regards to their attitudes and beliefs of pregnancy and motherhood as they live the experience. By gaining knowledge of pregnant teenagers' experiences more effective educational programs can be developed to aid in postponement of teenage pregnancy. This is a replication of Spear's (2004) study.

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