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Women Who Become Pregnant as Teenagers: Their Views on How To Decrease the Incidence of Teenage Pregnancy

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WOMEN WHO BECAME PREGNANT AS TEENAGERS: THEIR VIEWS ON HOW TO DECREASE THE INCIDENCE OF TEENAGE PREGNANCY

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THESIS ACCEPTANCE

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ABSTRACT

The purpose of this study was to assess the views and recommendations of women who became pregnant as teenagers with respect to the most effective approaches and techniques for decreasing the incidence of teenage pregnancy. This information may be helpful in developing proactive pregnancy prevention strategies and programs. One hundred women, who became pregnant as teenagers, were the subjects of the study at the Nebraska Health System Centers (NHS), (NHS OB-GYN Clinic), NHS-University Hospital-OB-GYN, and The Family Medicine Clinic located in Omaha, Nebraska. The subjects were asked to fill out a questionnaire that was composed of 36 questions, which was administered at the Nebraska Health System Centers. Results are reported as frequencies. Responses indicate that these women recommend more parental interaction, better use of media, education programs that emphasize birth control as well as abstinence, and present the realities of being a parent. Information obtained generated the responses to be used for recommendations for further practice.

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DEDICATION

The author would like to dedicate this thesis to several people who have supported and encouraged me throughout my life.

To my beloved son Norman because of you I am able to have empathy and passion in regards to adolescent pregnancy. To my son, Jourdán, parents, and family; I appreciate all the encouragement and loving support.

My Father once told me "never feel ashamed, always hold your head up". Jourdán, "My life has been no crystal stairs. I's always kept a climbin on." (quotation from the poet Langston Hughes). I want you to do the same.

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Chapter 1 - Introduction

In the past 20 years teenage females in the United States have experienced the highest pregnancy rate among all countries in the Western Hemisphere. The United States pregnancy rate for those under 15 years of age is five times that of other western countries (Holt & Johnson, 1991). According to the Alan Gulmacher Institute (1991), more than one million teenage girls in the United States become pregnant every year. Statistics show that one in every ten girls between the age of 15 and 19 becomes pregnant, while one in every five girls is sexually active (LeHew, 1992). Statistics also show that teenage mothers are more likely to live in poverty and drop out of school. They also experience chronic unemployment, social isolation, and depression; and are more likely to receive welfare than their peers (Holt & Johnson, 1991). These young mothers are often undereducated, unskilled, overburdened, and face a constant uphill struggle. The children of teenage mothers are more likely to suffer from poor parenting and poor nutrition, as well as increased illness, accidents and hospitalization. They are also more likely to suffer from infant abuse and neglect as well as poor school performance. They are more likely to become teenage parents themselves (Hoekelman, 1993).

A number of factors have contributed to the high number of teenage pregnancies. These factors include impaired family relationships, problems in

school, emotional problems, misunderstanding about reproduction or contraception, and lack of contraceptive use (Howard & Mitchell, 1993). The outcome is teenagers that become pregnant. Prevention involves not only preventing the first pregnancy but also teaching the pregnant individual how to avoid a second pregnancy.

Many programs have been piloted to decrease the incidence of teenage pregnancy, none of which have been very effective (Howard & Mitchell, 1993). One such prevention program focuses on three areas, which include delaying high risk sexual behaviors, promoting contraception and contraceptive use, and utilizing the school systems to promote health and sex education. This program, however has not significantly decreased the rate of teenage pregnancy due to the overall lack of support from schools, families, and communities (LeHew, 1992). A similar program suggested by Jessor (Howard and Mitchell, 1993) involves three approaches. These approaches are termed insulation, minimization, and delay of onset. The first two approaches of this program have been difficult to implement due to society's reluctance to address the topic of sexual activity among adolescents. The delay of onset approach would seem to be a practical approach but is a totally unrealistic expectation from society. The reality that society has to face is that no matter what prevention strategies are in place, a percentage of our teenage population will engage in some type of sexual activity or experimentation.

This program has likewise shown no significant effect toward reducing teenage pregnancy (Howard & Mitchell, 1993).

A final program involves a multidisciplinary preventive approach that utilizes various disciplines and resources to combat teenage pregnancy (Howard & Mitchell, 1993). This too has not shown any significant effect toward reducing the incidence of teenage pregnancy due to a wide diversity of views and backgrounds that cannot seem to reach a common ground. The potential for such an approach would be extremely effective if total cooperation, support, and commitment were successfully solicited from institutions such as families, schools, and communities.

All of these pregnancy prevention programs range from encouraging teens to be abstinent by saying no to early sex, to providing information about sexuality, and making condoms and other forms of contraceptives available to students (LeHew, 1992). According to Jemmott JB, Jemmott LS, & Font GT,(1998) the average age for initial intercourse in American teens was 11.8 years . In addition, the millions of dollars that are spent yearly to support adolescent pregnancies are staggering (LeHew, 1992). Recently, teen pregnancy has declined. According to Hellerstedt (1998), data recently released by the Center for Disease Control Prevention (CDC) revealed that birthrates declined between 1991 and 1995. According to the CDC, the declines were seen in all age and racial groups. A lot of approaches have been

implemented without any significant impact. No one has asked women who were pregnant as teenagers about their views and recommendations of what could be done to decrease the incidence of teenage pregnancy.

Therefore, the purpose of this study is to assess the views and recommendations of women who became pregnant as teenagers with respect to their views on the most effective approaches and techniques for decreasing the incidence of teenage pregnancy. The views and recommendations of women that have been pregnant as teenagers, therefore, may be helpful in developing proactive pregnancy prevention strategies and programs that are more feasible and realistic than the contemporary strategies and programs previously discussed.

Chapter 2- Problem

Purpose

The purpose of this study was to assess the views and recommendations of women who became pregnant as teenagers with respect to the most effective approaches and techniques for decreasing the incidence of teenage pregnancy. This involved a questionnaire about what approaches and plans would have been most effective in preventing their teenage pregnancies. A review of the dynamics such as the family, educational and sexuality influences will be helpful in developing new strategies and programs to decrease the incidence of teenage pregnancy.

Research Question

What are the recommendations of women that experience a teen pregnancy in regards to the most effective means to prevent adolescents from becoming pregnant?

Delimitations

A convenience sample of one hundred women who became pregnant as teenagers, visiting the NHS-University Obstetrical-Gynecology Clinic, University-OB-GYN Unit, or The Family Medicine Clinic in Omaha, Nebraska were the subjects of this study in which they were surveyed about their views and recommendations toward prevention of adolescent pregnancy. The data were

collected between October 17, 1998 and January 8, 1999. All participants were over the age of nineteen years.

Limitations

One limitation of this study is the time factor that women, who became pregnant as teenagers, may want to spend on the actual questionnaire. This may affect the quality and thoroughness of their answers to the questions because of limited time they have to spend in the clinic. Secondly, women who became pregnant as teenagers may not answer questions honestly because of embarrassment and/or fear. This may have been a "hidden chapter" in their life that they may not want to re-open. Also, if the participant is very suspicious of what and how the information will be used, she may be very hesitant about providing information that she is embarrassed or fearful about releasing. There are some global limitations to this study because the recommendations and views of women who became pregnant as teenagers born outside of the United States may not have any value toward this study because many foreign societies may be culturally incompatible. While this limitation may depend on the specific culture, focusing on women who became pregnant as teenagers within the United States minimizes variability. Finally, since this was not representative, there is a threat of sample bias.

Definition of Terms

NHS – Nebraska Health System.

UMA NHS Clinic – University Medical Associates NHS OB-GYN Clinic.

Adolescent Pregnancy – A pregnancy that occurs before reaching 19 years of age, regardless of marital status.

ACOG-Antepartum Record (Form A) – Form that was used by the NHS OB-GYN clinic and NHS-University OB-GYN unit to identify participants in the study.

NHS Family Practice Prenatal Record (From B) – Form that was used by NHS Family Medicine Clinic to identify participants for the study.

Significance

The significance of this study is that women who became pregnant as teenagers may have meaningful recommendations and opinions regarding the most effective approaches and strategies to decrease the incidence of teenage pregnancy. If the impact of the educational, family, and sexuality factors are understood, the results from the survey may assist with the active development and implementation of effective educational programs and strategies.

Chapter 3 - Review of Literature

Introduction

Adolescent pregnancy is a major health issue. There are about 250,000 babies born to teens every year. Another 750,000 teens become pregnant annually, with these pregnancies ending in miscarriages or abortions (Holt & Johnson, 1991). Until recently, teenage pregnancy has continued to rise at an unacceptably high rate. The National Research Council estimated in 1987 that forty percent of white women and sixty-four percent of black women reaching the age of 20 years in 1990 will have experienced at least one pregnancy (Hoekelman, 1993). According to Hellerstedt (1998), data recently released by the Center for Disease Control and Prevention (CDC) revealed that birthrates declined between 1991 and 1995. The CDC reports that declines were seen in all age and racial groups; however, the decline in birthrates for 15 to 17 year olds and African Americans were especially large. Data from the 1995 national Survey of Family Growth suggest three trends that may have contributed to the decline in pregnancy. The first trend is that the proportion of sexually active teens has leveled off since 1990. Also, condom use has increased substantially among sexually experienced teens; and contraceptive implant and injectables were introduced in the early 1990's.

Another study estimated that one in four children aged 10 to 17 years were at risk for at least one of several situations including teenage pregnancy, failure in

school, drug abuse, or juvenile delinquency. At least one in nine persons were at risk for all of these situations happening to them at once (LeHew, 1992). The birthrate among United States young women between the ages of 15 and 19 years of age declined steadily from 89.1 live births per 1,000 women in 1960 to 57.3 live births per 1000 women in 1985. The rate increased to 62.1 live births per 1,000 women in 1991(Carter et al. 1994). Teenage pregnancy prevention is a very complex problem that requires overcoming a number of roadblocks. There have been several programs and approaches to decrease the incidence of teenage pregnancy. The purpose of this chapter is to review the current programs and approaches that are available to teenagers today.

Current Prevention Programs and Approaches

A prevention program discussed by LeHew (1992) concentrated on several general areas. The first was delaying and reducing high-risk sexual behaviors. The second was geared toward promoting contraception and contraceptive use. The third was utilizing the school system(s) more efficiently for promoting health and education about sexuality. Finally, these programs must gain widespread support from the medical communities, local, state and federal governments, and business and church communities to be successful. According to Howard and Mitchell (1993), currently, 8 million out of the nation's 30 million seventh to twelfth grade students consume alcohol on a weekly basis. The average age for

first sexual encounters for American teen girls is 15.2 years and 15.7 years for boys.

Richard Jessor suggested three approaches to help manage such behaviors as smoking, drinking, and sexual activity (Howard and Mitchell, 1993). These approaches were termed insulation, minimization, and delay of onset. To date the most successful approach for preventing teenage pregnancy has been through insulation, or the use of contraceptives. The main drawback to this approach is that society as a whole is very uncomfortable about the message that is being sent by openly advocating the distribution and use of contraceptives to the adolescent population.

The minimization strategy helps young people to limit their involvement in sexual behaviors, which reduces the likelihood of harmful outcomes and situations. Minimization includes limiting involvement in sex to short-term experimentation or limiting the number of sexual partners. This program focuses heavily on birth control because statistics show that sixty percent of the adolescents under age sixteen who give birth are more likely to give birth to another child while still of school age.

The delay-of-onset approach focuses on abstinence from sex, which was a viable strategy during the 1970s when abstinence was the norm among adolescents. During the seventies only 4.7% of 15 year old girls had experienced

sexual intercourse while over five times as many girls at that age were sexually active by the late eighties. According to LeHew (1992) the real problem is that it is more comfortable for communities and parents to focus on abstinence than to work with sexually active adolescents by making contraceptive care available to them.

Figure 3.1

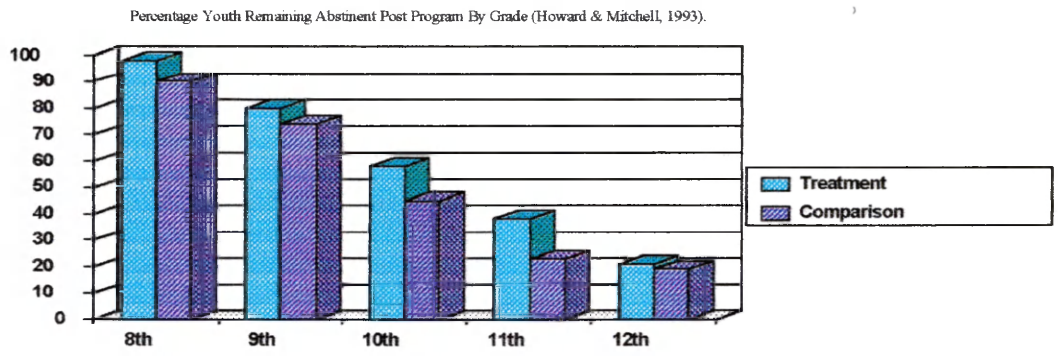


Figure 3.1, showed and compared the results of an abstinence program on teenagers between the grades of eight and twelve. More than 4000 youths were actually administered the program but the actual sample size used for evaluation was 685. Because of the small sample size some caution is urged in terms of interpreting the data but the primary point that was driven, was sexual involvement was reduced overall.

Also, according to Hoekelman (1993), Howard and Mitchell (1993), LeHew (1992), and Carter et al.(1994), the primary thrust to have a significant impact on preventing adolescent pregnancies is to begin primary prevention programs with very young children at a stage where the likelihood of developing strong socialization, communication and decision making skills are optimal. Goal setting

skills, social resistant skills, and assertiveness programs can be utilized to encourage family communication and peer advocacy programs. In Virginia, Georgia, and North Carolina, this type of program began in kindergarten (LeHew, 1992). The promotion of contraceptive use among sexually active teens through a family planning service provides secondary prevention. Statistics show that only 27% of young women who ever had intercourse made their planning visit before first intercourse whereas 73% wait an average of 2-3 months after their first sexual encounter (Carter, et al. 1994).

The multidisciplinary preventive approach consists of various agencies and programs joining forces to combat teenage pregnancy. These agencies and programs include: health care providers; schools; churches; local; state; and federal governments; and even community programs and resources. According to Fisher, Harris, Ransom, Andrew, & Pilliam.1998, there are some that believe a highly effective way to decrease the number of adolescent pregnancies is to increase access to contraceptives for teenagers who choose to be sexually active. This approach could potentially have the biggest impact and significance with the total cooperation and support of all the entities involved.

For example, one conservative, rural community implemented strategies to increase access to contraceptives for their youth (Fisher et al. 1998). In 1993, a Kansas Health Foundation funded an innovative program to increase adolescent

availability to contraceptives without their experiencing negative social consequences. The program was called "The Brown Bag Program". Adolescents would call a participating pharmacy to request prescription or nonprescription contraceptives. The pharmacist would prepackage the contraceptives upon receiving a call-in order. The youths would give only the name they would use when picking up their purchase. Bagging the contraceptives ahead of time helped adolescents avoid some negative consequences (Fisher et al. 1998). According to Fisher et al. to ensure the success of the program it was important to gain the acceptance and cooperation of community members.

Another program (Brown-Peterside, & Laraque, 1998) was developed as part of the Harlem Hospital Adolescent Pregnancy Prevention Project. They used an interactive computer program that encouraged adolescents to delay parenthood. Ninety-one percent of all teens reported knowing more about the cost of having a child, as well as viewing a child as adding problems to their lives, and were significantly more apt to value contraception. The prevalence of repeat adolescent pregnancies averages 30% during the first postpartum year and 40 to 50% during the second postpartum year (Stevens-Simon, Dolgan, Kelly & Singer, 1997). During the last decade, incentive programs and peer-support groups have become the second most popular strategy for preventing adolescent pregnancies (Stevens-Simon, et al. 1997). These are attractive intervention strategies because they

provide immediate, tangible rewards for not becoming pregnant. Peer support groups are considered to be one of the most effective forums for health education (Stevens-Simon et al. 1997).

Congress allocated $50 million annually for five years (1998-2002) to states for the provision of abstinence only programs. To qualify for funding states had to match every four federal dollars with three state (or other public or private sector) dollars. Annual totals of approximately $87 million will be allocated for abstinence and education (Di Clemente, 1998; Nadler,1998; Crabtree, 1997; and Henderson, 1997).

There are two types of abstinence programs; comprehensive and abstinence-only. The comprehensive program teaches both abstinence and contraception. Abstinence-only programs prohibit discussion of contraception (Henderson, 1997). The Peterkin Program (and one of several Best Friend programs nationwide) teaches young girls that they should abstain from sex at least until High School, but preferably until marriage (Henderson, 1997). This program teaches self-respect and refusal skills and develops positive peer pressure to nearly 260 inner city girls.

According to Nadler, (1997) abstinence-only programs often use fear tactics to scare teens into chastity. Also, according to Anita Leone, executive director of the Family Planning Association in Trenton, NJ, "Programs really have to be

comprehensive to work. They need to stress abstinence, give students decision-making skills so they can say no, and give students information about contraception" (Henderson, 1997 p1).

A study conducted by (Jemmott et al.1998) was the first randomized controlled trial of an abstinence intervention compared with safer sex intervention and an attention-control condition. The findings demonstrate that culturally sensitive, cognitive-behavioral interventions can reduce sexual risk behavior among African American adolescents. The abstinence intervention was effective over a short follow-up period. At the 3-month follow-up, adolescents randomized to the abstinence intervention were less likely to report being sexually active compared with adolescents in the control group. These effects were primarily observed among youth that were not sexually experienced at the baseline. Among those sexually experienced at the baseline no treatment advantage was observed for the abstinence intervention compared with either the control group ($p=.12$) or the safer sex intervention ($p=.52$). The effects of the abstinence intervention diminished with longer-term follow-up. At 6 and 12-month follow-ups, there was no difference between the proportion of adolescents in the abstinence intervention relative to the control or safer sex intervention that reported having sexual intercourse.

Conversely, the effects of the safer sex intervention on condom use were sustained at 6 and 12 months after intervention. At the 3 month follow-up, the safer sex intervention was primarily more effective in reducing unprotected sexual intercourse among adolescents who were sexually active prior to participating in the project. At 6 and 12-month follow-ups, the safer sex intervention still had significant effects on reducing the frequency of unprotected sexual intercourse among adolescents who reported being sexually experienced at pre-intervention (Jemmott et al. 1998).

According to Farrington, more than 1,000 teen girls in Atlanta were asked what they wanted to learn in sex education; 84% answered "how to say no without hurting the other person's feelings". At more than 700 sites around the United States, teen girls participate in Girls Inc.'s Preventing Adolescent Pregnancy Program (PAP), which is designed to help teenage girls work together to develop strategies for postponing sexual activity and avoiding pregnancy (Farrington, 1995).

Yet another abstinence program that is creating a mini revolution in the lives of some teenagers is the "True Love Waits" program. More than 250,000 teens have signed the program campaign pledge cards (Farrington, 1995).

Supportive Intervention Programs and Approaches

Once a teenager becomes pregnant there are a number of "after the fact" education approaches that can be employed. "After the fact" programs are focused on educating the teenage mother to prevent reoccurrence. One such program is called previewing and focuses on promoting the teenager's ability to envision future outcomes based on her experiences. The program arms the young mother with tools to focus realistically on the consequences of being a mother. The mother actually familiarizes and educates herself on the socioeconomic, family, educational and sexuality influences that have lead her to her current situation. This information can then be utilized to develop new personal strategies and programs to effectively prevent reoccurrence. The "down side" of such a program is that the mother is educated at the expense of having a child (Trad, 1993).

The Dollar a Day Program is another program formed to prevent repeat adolescent pregnancy. During a 24-month recruitment period, a total of 286 new primiparous adolescent mothers were randomized to the four treatment groups. Roughly 248 participants (87%) completed the study. The participants met weekly to collect seven dollars (one dollar for each non-pregnant day) to share snacks in a supportive peer group environment. Only 17% of the adolescent mothers who participated in the program became pregnant again during the two years following the birth of their first child (Stevens-Simon, et al1997). Peer support group

experience failed to prevent repeat pregnancies. The incidence of second pregnancies at 6 months, 12 months, 18 months, and 24 months following delivery did not vary significantly in relation to intervention strategy (Stevens-Simon et al. 1997). A monetary incentive drew adolescent mothers to sites where they could discuss the cost and benefits of contraception with knowledgeable adults and supportive peers.

Summary

Teenage pregnancy prevention is a complex problem that has been addressed by a variety of approaches and strategies. The bottom line from the majority of studies is that sexual activity is on a decline in the adolescent population. There continues to be a need for current approaches and strategies. In order to decrease the incidence of teenage pregnancy, abstinence must still be encouraged by our churches, families and schools, but not totally relied on as the solution. Ethics and morals will still play a major part in the development and growth of adolescents. However, based on the emerging trends in adolescent sexuality, society must continue to acknowledge the fact that adolescents are going to be sexually active, and take proactive measures to address this on-going problem. One potential vehicle would be to determine if a review of women who became pregnant as teenagers could help identify the most effective prevention approaches and plans or to develop new strategies and programs to decrease the incidence of teenage pregnancy.

Table 3.1 Review of Literature

Author	Year	Subjects	Design	Results	Limitations
Brown-Peterside, P. Laraque, D	1998	250 adolescents	Computer Program	**91% of teens reported knowing more about the cost of having a child View a child as adding problems to their lives. Were significantly more apt to value contraceptives**	Convenience sample
Carter, D Felice, et al.	**1994**	4000, public school students (7th -12th grade) sex education class	Survey	**93% reported their schools offered sex education. 84% reported program included information on sexual decision making, abstinence, and birth control methods.**	Convenience sample
Durbin,M DiClemente, R et al.	**1993**	403 (7th-9th grade) students from inner city school district in northern California	Survey	**40% of the sexually active adolescents reported using condoms rarely or never. 31% reported only one partner. 26% reported two partners. 22% reported three to five partners and 21% reported six or more partners**	Convenience sample
Edet, E	**1991**	Teenagers/Adolescents	Model	**Model is based on the Role of Sex Education broken down into 7 Phases based on Epidemiological, Social, and behavioral education**	Conceptual May be very hard to actually implement effectively
Farrington, J	1995	1000 teen girls	Survey	**84% of the adolescent females requested more information about refusal skills**	Convenience sample
LeHew, W	**1992**	9th -12th grade students in the North Carolina, Virginia, South Carolina, Florida, and Georgia areas of the country.	Survey	**40% of ninth graders were sexually active and 72% of twelfth graders were sexually active. Less than 50% of teen mothers finish High School**	Population limited to particular region of the country.

Table 3.1
(continued)

Author	Year	Subject	Design	Results	Limitations
Henderson, C	1997	260 inner city girls	Holistic Program	Program taught girls to have self respect and refusal skills, develop positive peer pressure skills	Convenience
Jemmott, JB Et al.	**1998**	70000 Adolescents	Randomized Controlled Trial	**Among those sexually experienced at base line no treatment advantage was observed for the abstinence intervention compared with either control group (p=.12) or the safer sex intervention (p=.52**	Convenience
Howard, M Mitchell, M	**1993**	4000 (8th grade) students in a large school system. Student evaluation was conducted.	Survey	**Were able to realize a 66% reduction in sexual involvement.**	Convenience sample Evaluation focused on 685 of the poorest youth out of the 4000 that actually participated in the program
Stevens-Simon C. et al.	1997	286 Primiparous girls younger than 18 y ears old, whose infants were younger than 5 months	Two year prospective, randomized controlled trial	Incidence of 2nd pregnancies @6months(9%, 22/248), @12 months (20%, 49/248), @18months(29% 72/248) @24 months(97/24) Monetary incentive draws adolescent to sites. These discussions do not prevent repeat pregnancies	Convenience
Trad, P	**1993**	25 pregnant teens	Survey	**85% able to compensate for their developmental deficits by predicting maturational progress**	Small sample size

Chapter 4 - Methods

Respondents

Convenience sampling was used to obtain subjects at the Nebraska Health System Centers, including the NHS OB-GYN Clinic, NHS-University OB-GYN Unit, and the Family Medicine Clinic. One hundred women that became pregnant as teenagers, and were affiliated with the Nebraska Health System Centers were asked to answer a questionnaire if they met the inclusion criteria. Also, the primary investigator invited clinic visitors from the obstetrics gynecological unit at NHS-University. Subjects were identified by the primary investigator, the UMA OB-GYN registered nurses (RN) and certified nurse midwives (CNM) from the ACOG-Antepartum Record (Form A) and by the UMA RN from the Family Medicine Clinic and Family practice Prenatal Record (Form B) (See Appendix B). Subjects were selected according to the following criteria:

1. Women that became pregnant between their 13th and 19th birthdays.
2. All women that became pregnant as teenagers must have been over the age of 19 years old, and were asked to complete the questionnaire regardless of marital status and prior sexuality education.

The study was approved by the Institutional Review Board #269-98. The study focused on subjects with at least one teenage pregnancy regardless of marital

status and sexuality education. This ensured that information came from a full range of conditions and demographics (Refer to Table 5.1). After receiving approval from the Institutional Review Board, the subjects were presented with an invitation to participate in the study in the form of an invitation letter and an unsigned consent form. If they agreed to participate they were given the survey to fill out. The subjects were assured of anonymity and confidentiality.

Instrumentation

Questions were selected by the investigator in consultation with Dr. Stacy, (professor of Health Education at the University of Nebraska at Omaha) and through literature review. A pilot test was performed to test for readability, appropriateness of questions, and clarity. Ten women that were pregnant as teenagers were asked, prior to data collection, to complete the questionnaire. All of them reported the questions were appropriate and should solicit valid comments and recommendations. (A copy of the instrument is provided in Appendix A.)

Descriptive Design

A descriptive design was used for this study.

Data Collection Procedures

The UMA Registered Nurses from the NHS Health Centers and the Certified Nurse Midwives at the NHS OB-GYN Clinic and Family Medicine Clinic, were trained by Anna M. Kellogg RN, BSN (the primary investigator) to select

individuals appropriate for the study. The clinic visitors were identified during their clinic visit by the participating personnel. Also, the primary investigator invited clinic visitors from the obstetrical GYN unit at the NHS-University. Designated forms (See Appendix B) were used to determine a woman's eligibility for the study. One of the participating personnel identified potential subjects and collected the data from the ACOG Antepartum record (Form A) or the Family Practice Prenatal Record (Form B). After identifying the women meeting the inclusion criteria, the clinic visitors were invited to participate in the study. One of the participating personnel discussed with each subject the purpose of the study and selection criteria. A cover letter and an unsigned consent form were administered and discussed with each subject. The clinic visitors were allowed time to ask questions after reading the unsigned consent form. Once the subjects voluntarily agreed to fill out the questionnaire, a copy of the unsigned consent form was given to them and a copy was placed in their chart to avoid the possibility of being invited more than once. The subjects were notified that if at any time while answering the questions they became uncomfortable, they could voluntarily withdraw from the study.

Data collection involved a questionnaire comprised of 36 questions. The questionnaire was administered at any one of the UMA-NHS Health Centers as mentioned previously by one of the participating personnel during the subject's

visit to the clinic/OB-GYN unit. After completion of the questionnaire the subjects were instructed by one of the participating personnel to place the questionnaire in a box with a slit in it. The data were removed from the box daily by either the primary investigator or one of the participating personnel. The data were then placed in a locked file drawer at each UMA clinic until processed by the primary investigator. The questions were geared toward a sixth grade reading level to maximize understanding and participation.

Data Analysis

The data were analyzed using the Microsoft Excel program after 100 questionnaires were completed. The primary investigator categorized responses to nine open-ended questions with the assistance of Dr. Stacy, Professor of Health Education, at University of Nebraska at Omaha. Descriptive statistics were used to summarize the data. The data were used to present responses to various demographic questions and aspects of the respondent's sexual and education history.

Chapter 5 – Results

One purpose of the results chapter was to evaluate the research question, "What are the recommendations of women that experience a teen pregnancy in regards to the most effective means to prevent adolescents from becoming pregnant?" In Table 5.1 the demographic characteristics of the sample are presented. The age range of the sample was from 19-65 years of age with a mean of 27.8 years and a standard deviation of 9.05. The age range of the respondents during their initial pregnancy was from 13 –19 years of age with a mean of 16.8 years and a standard deviation of 1.55.

The most highly represented education level was that of high school graduates or less, which was 33.3%. Respondents that had some college or trade school accounted for 27.7% of the sample. African Americans accounted for 46% of the sample while 44% were White. The majority of respondents were single (58%) and held non-professional positions (46%). See Table 5.1 on page 28.

The respondents' sexual history characteristics were examined in Table 5.2. The respondents were asked several questions regarding their sexuality history. Roughly 78% of the respondents reported "no" to "Did they become pregnant as a result of their first sexual encounter?" Also, 63% reported "no" to having more than one pregnancy as a teenager. When asked, "Did you and your partner discuss

sexual intimacy prior to intercourse?" there were 52% of the respondents that reported "no". When asked, "Were contraceptives used during your first sexual encounter?" again, 56% of the respondents reported "no". Roughly 41% of the respondents reported they felt pressured/influenced by their partner to have sexual intercourse. Nearly 52% of the sample responded "yes" to "If they ever used contraceptives during sexual intercourse", as compared to 48% that responded "no". The majority of respondents did not use alcohol/drugs at the time of their first sexual encounter (77%). The majority of the respondents did not terminate a pregnancy either (76%).

Table 5.1 Demographic characteristics of the sample (N=100)

Variable	Frequency
AGE MEAN:	
27.76 yr	
STANDARD DEVIATION	
9.05	
PREGNANT AGE MEAN	
16.79 yr	
EDUCATION:	
Less than 12th grade	27
High School Graduate	33
Some College/Trade School	27
College Graduate/Beyond	12
RACE	
African American	46
White	44
Other(Hispanic American, Asian American, Native American)	10
MARITAL STATUS	
Single	58
Married	35
Other (Divorced,Widowed,Separated)	7
OCCUPATION	
Professional	15
Para-Professional, Clerical, Industrial	46
Student	4
Not currently employed	34

Table 5.2 Sexual history: Characteristics of the sample

Variable	Yes	%	Frequency	No	%
Ever use contraceptives during sexual intercourse n=100	52	52.0		48	48.0
Felt pressured/influenced by partner to have sexual intercourse n = 99	41	41.4		58	58.6
Use of contraceptives during first sexual encounter. n=93	38	38.8		55	56.1
More than one pregnancy as a teenager n=99	36	36.4		63	63.6
Discussion of sexual intimacy prior to intercourse n=83	32	32.7		51	52.0
Terminate pregnancy as a teenager n = 99	23	23.2		76	76.8
Use alcohol/drug at time of first sexual encounter n=99	22	22.0		77	77.0
If yes, used alcohol/drugs at first sexual encounter, do you think your decision was influenced by alcohol? n=44	19	22.0		25	22.0
Became pregnant as result of first sexual encounter. n=99	18	18.2		78	78.0

The characteristics of the respondents' sexual history were examined with reference to the age of the respondents at their first pregnancy (See table 5.3). The respondents representing the largest age group that became pregnant as teenagers was the age 17 group (28%). The next highest age group represented was 15 years and under at 23%. The eighteen-year-olds were third at 21%.

Table 5.3 Sexual History: Age at first pregnancy (N=100)

Variable	Frequency	Percent
13	4	4
14	2	2
15	17	17
16	14	14
17	28	28
18	21	21
19	14	14

The sexuality education received by the respondents prior to becoming pregnant was examined (See table 5.4). Fifty-five percent of the respondents reported that they had not taken a sexuality education course prior to becoming pregnant. Likewise, 65% of the respondents reported no to "Were contraceptives discussed in the home?" Another 63% reported "no" to "Whether the consequences of

Table 5.4 Sexual education the respondents received prior to pregnancy N=100

Variable	Yes	%	Frequency	No	%
Sexuality education prior to becoming pregnant	45	45.0		55	55.0
Discussion about the consequences of sex	36	36.3		63	63.6
Contraceptives discussed	34	34.3		65	65.7
Comfortable discussing sexual feeling with parents/legal guardian	21	21.0		79	79.0
To what extent were responsible sexual behaviors taught at home?				A lot 35%	Never 43%

sexual intercourse were discussed with them by their parent/guardian". Seventy-nine percent of the respondents did not feel comfortable discussing their sexual feelings with their parent/legal guardian. About 43% or the sample reported that responsible sexual behaviors were never taught in their homes.

The prevention programs that were available when respondents were teenagers, are presented in table 5.5. Respondents were asked to check responses that applied. Discussions by your mother/family were the most highly frequently identified response as reported by 52% of the sample. The second most frequently identified response was school-based programs at 47%. Information from friends was also highly represented at 47%.

Table 5.5 Sexuality education: (N=100+) Prevention programs that were available when respondents were teenagers

Variable	Frequency	%
Discussion by your mother/family member	52	52
Information from friends	47	47
School-based Programs	47	47
Programs through doctor's office/clinic	39	39
Education Materials	37	37
Church-based Programs	4	4

Table 5.6 refers to programs in which the respondents actually participated. About 43% of the respondents said their primary participation was discussions by their

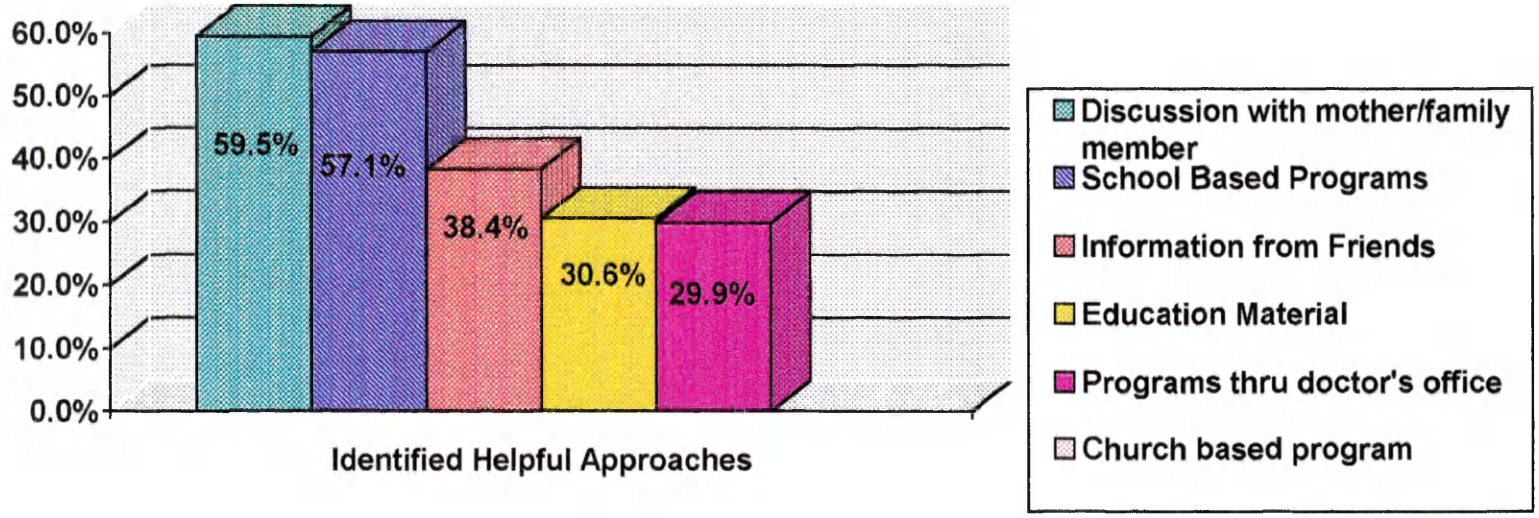
mother/family member, another 42% of the respondents said their primary participation was information from friends, and 40 % of the respondents identified school based programs.

Table 5.6 Programs in which teenagers actually participated. (N=100)

Variable	Frequency	%
Discussion by your mother/family member	43	43
Information from friends	42	42
School-based Programs	40	40
Education Materials	28	28
Programs through doctor's office/clinic	22	22
Church-based Programs	2	2

Teen mothers were asked, "Can you tell me which of the following sources you found to be most helpful to you? About 59 % of the 74 subjects identified discussions with their mother/family member as the most helpful. Another 57.1% identified school based programs as the second most helpful. (See Figure 5.1)

Figure 5.1 Approaches teen mothers found to be most helpful



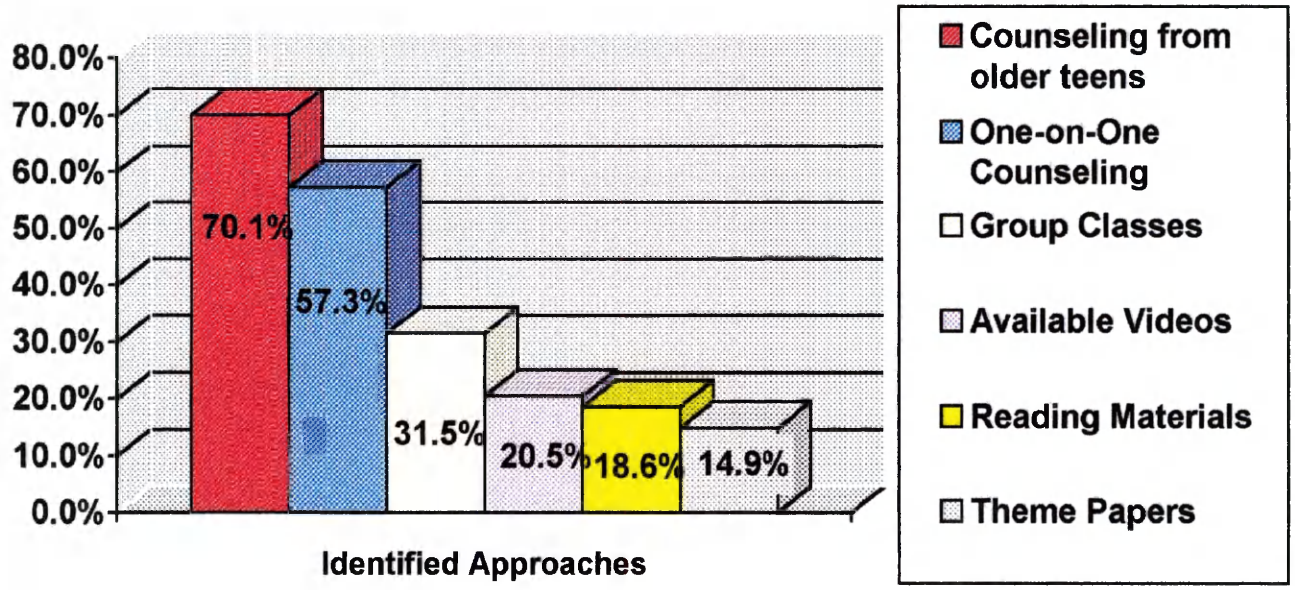
The respondents were asked why they did not use available sources (See Table 5.7). Twenty-seven percent of the respondents reported that fear of parents was the main contributing factor. There were 24% of the respondents that said embarrassment was a reason.

Table 5.7 Reasons why respondents did not use available sources. (N=100)

Variable	Frequency	%
Fear of Parent(s)	27	27
Embarrassment	24	24
No time	10	10
Inconvenience	8	8
Cost	7	7
Peer Pressure	6	6
Partner did not want me to	4	4

The respondents were asked "Which of the following approaches do you think would be the most effective in trying to prevent teenagers today from getting pregnant?" (See Figure 5.2). Seventy percent of the respondents identified having older teenagers work with the younger ones to provide information and counseling as the primary response. Another 57% identified one-on-one counseling. A less effective approach as identified by the respondents, was to have teens write theme papers about teenage pregnancy.

Figure 5.2 **Effective approaches to prevent teenage pregnancy today**



The respondents were asked "What types of information or support would have been most helpful to them that could have prevented their pregnancy from happening?"(See Table 5.8). Forty-seven percent of the responses suggested information about intercourse, while 45% of the respondents said information about contraception, and another 40% said experience for decision-making skills.

Table 5.8 Information or support that would be helpful to prevent respondent's pregnancy. (N=100)

Variable	Frequency	%
Information about intercourse	47	47
Information about contraception	45	45
Experience for decision-making skills	40	40
Information about abstinence	31	31
Information about communication with your partner	27	27

The respondents were asked to hand write their responses to nine questions which explored their opinions and recommendations. Content analysis was done by Anna M. Kellogg, RN, BSN, and Dr. Richard Stacy to achieve consistency. One of the questions the respondents were asked is in table 5.9. The top eight responses were listed after being categorized, which included parental involvement/education from 25.2% of the respondents, access to birth control methods and information from 18.9% of the respondents, and getting information about difficulties being a parent from 13.5% of the respondents.

Table 5.9 What is the one thing that might have prevented you from becoming pregnant as a teenager?

	Frequency	Percent
Parental Involvement/ Education	28	25.2
Access to birth control methods & information	21	18.9
Getting info about difficulties being a parent	15	13.5
Having increased self esteem	11	9.9
Abstinence	9	8.1
Focus on relationships w/boys/love & Peer Pressure	7	6.3
Education in schools/churches & elsewhere	6	5.4
Involvement in Diversional Activities	2	1.8
Total	99	89.2

The respondents were asked what they plan to do with their child/children to prevent them from becoming pregnant while they are teenagers (See table 5.10). The table shows that 47.1 % of the respondents reported they would be honest, and provide open communication and education. Another 13% said they would encourage birth control use, and another 13% said they would discuss the responsibilities and consequences of being a teen mother. Yet, another 8.4% of the respondents said they would discuss their own experiences with their child/children.

Table 5.10 What do you plan to do with your children to prevent them from becoming pregnant or from getting someone pregnant while they are a teenager?

	Frequency	Percent
Honest open communication/education	56	47.1
Encourage birth control use	15	12.6
Discuss responsibilities and consequences of being teen mother	15	12.6
Discuss my experiences with them	10	8.4
Talks should begin early	7	5.9
Set Rules	2	1.7
Divisional activities	1	.8
Discuss Peer relationships	1	.8
Total	107	89.9

The respondents were asked what should be done to do get more teenagers who have had sex to use contraceptives? (See table 5.11). Twenty-six and one-tenths percent of the respondents suggested more education for boys-girls in schools and elsewhere. Another 21% said more low cost birth control and 15% said parental involvement/communication.

Table 5.11 What should be done to get more teens who have had sex to use contraceptives?

	Frequency	Percent
Education for boys-girls in schools and elsewhere	31	26.1
Low cost birth control Available, advertise, and availability	25	21.0
Parental Involvement/Communication	18	15.1
Difficulties being a parent	14	11.8
Use of fear tactics	11	9.2
Peer Education	7	5.9
Confidentiality of birth control	4	3.4
Total	110	92.4

The respondents reviewed what they felt should be done to prevent a teenager's second pregnancy (See table 5.12). Twenty-five and two-tenths percent of the respondents said to tie birth control to financial aid and utilize financial aid as an incentive for birth control. Another 16.8% responded that more counseling/education was needed. Also 14.3 % suggested accepting responsibility for the first child and understanding the difficulties of being a parent of two.

Table 5.12 What should be done to prevent a teenager's second pregnancy?

	Frequency	Percent
Tie birth control to financial aid, use of financial aid incentive for birth control	30	25.2
More Counseling/education	20	16.8
Accepting responsibilities for 1st child/difficulties being parent of 2	17	14.3
Mandatory birth control, passive birth control started at delivery of first child	11	9.2
Communication/parental involvement	9	7.6
Abstinence	4	3.4
Support Groups/Church	2	1.7
Total	93	78.2

The respondents shared what they felt must be done to get more teenagers to seek birth control information and services (Table 5.13). Counseling/education in schools was listed by 32.8% of the respondents. Parental involvement and communication represented 17.6% and make birth control more accessible in schools and clinics was suggested by 12%.

Table 5.13 What should be done to get teenagers to seek birth control in schools and elsewhere?

	Frequency	Percent
Counseling/education in schools and clinic.	39	32.8
Parental involvement/communication	21	17.6
Accessible birth control in schools and elsewhere	14	11.8
Public role models/media	9	7.6
Spiritual Guidance	6	5.0
Protect their privacy and confidentiality	5	4.2
Information about difficulties being a parent	4	3.4
Using Fear tactics	1	.8
Total	99	83.2

The respondents were also asked "What should be done to either prevent or delay the beginning of sexual activity by the teenager?" Table 5.15 lists the responses. The most recommended response was counseling and education (23.5%), followed by parental involvement and communication at 21.0%. Another 13.4 % recommended to have other pregnant teenagers talk to them about reality/consequences.

Table 5.15 What should be done to prevent or delay the beginning of sexual activity by teenagers?

	Frequency	Percent
Counseling /education	28	23.5
Parental Communication w/children/involvement	25	21.0
Have other pregnant teens talk to them about reality/consequences	16	13.4
Other activities	9	7.6
Parental Group discussion	3	2.5
Church involvement	2	1.7
Use of media	2	1.7
Focus on getting an education	2	1.7
TOTAL	87	73.1

The respondents were asked what should be done to teach children to handle peer pressure as they become teenagers. Table 5.14 lists the responses. The most recommended response was teach leadership skills, self-confidence, self-esteem and other life skills, represented by 38% of the respondents. Parental involvement and communication represented 19.3% and education should start young was recommended by 9.2% of the responses.

Table 5.14 what should be done to teach children to handle peer pressure, as they become teenagers?

	Frequency	Percent
Teach leadership skills/self confidence, self-esteem and other life skills.	45	37.8
Communication/Parental involvement	23	19.3
Education start young	11	9.2
Use of Counselors	9	7.6
Teen support groups	4	4.2
Church Activities	1	.8
Use of media	2	1.7
Total	96	80.7

Recommendations made by the sample to prevent teenagers from using alcohol and or drugs (See table 5.16). Sixteen percent of the sample recommended a need for an increase in education in schools and elsewhere. Another 14.3% of the respondents said that the harmful effect of alcohol/drugs should be focused on. Still another 12.6% reported that consequences should be concentrated on.

Table 5.16 What recommendation to prevent teenagers from using alcohol and /or drugs?

	Frequency	Percent
Education in schools and elsewhere	19	16.0
Focus on harmful effects	17	14.3
Consequences	15	12.6
Parental Group discussion	14	11.8
Tour alcohol/drug rehabilitation	8	6.7
Community involvement/Church	5	4.2
Use of fear tactics	3	2.5
Other activities	3	2.5
Total	84	70.6

The last question the respondents were asked was "What recommendations would you offer to others in preventing teenagers from having sex when using alcohol and or drugs? (See table 5.17). Twenty-five and two-tenths percent of the sample recommended a need to focus on risk/consequences associated with alcohol/drug use. Another 10.1% recommended educational/media counseling and there were 5.9% suggested parental involvement/communication.

Table 5.17 What recommendations to prevent teenagers from having sex when using alcohol and /or drugs?

	Frequency	Percent
Focus on risk/consequences associated with alcohol, drug use.	30	25.2
Education/media counseling	12	10.1
Parental involvement/communication	7	5.9
Focus on issues about pregnancy effects of alcohol/drugs on fetus	5	4.2
Focus on how having sex while using alcohol/drugs can increase risk of pregnancy or Sexually Transmitted Disease (STD)	5	4.2
Other activities	3	2.5
Have teens that have had ill effects talk w/other teens	3	2.5
Total	84	70.6

Summary of Results

A review of the results reveals several consistent recommendations. The most consistent recommendation observed throughout the survey was the absolute need to have parental involvement in the sexuality communication and education process of the teenager. Along with parental involvement, the teenager must feel comfortable enough to address his/her sexual feelings with their parent/legal guardian, which means (as the responses indicate) there has to be an environment of open, honest communication in the household for any education or information sharing to be effective. It was also advised that the sexuality education begin at an earlier age so that there is a prevention focus rather than treatment (after the fact).

Another consistent recommendation was to allow teenagers to have greater access to birth control methods and information if they have decided that they will be sexually active. The responses of the sample tended to indicate that abstinence should still be encouraged in the home.

Another interesting recommendation was to have teenagers educated by experiencing or learning the difficulties associated with being a teenage parent. This theme was very common among the respondents.

The most consistent recommendation, however, was to build an open, honest environment where the teenager feels comfortable enough to share their feelings as well as ask questions.

Chapter 6: Discussion

This was a descriptive study with frequency statistics being reported.

The research question posed was:

What are the recommendations of women that experience a teen pregnancy in regards to the most effective means to prevent adolescents from becoming pregnant?

To answer this question the demographics, sexual education and behavior of the sample were explored. African Americans and Caucasians almost evenly represented the sample, which means that African Americans were oversampled. African Americans bear a disproportionate number of adolescent pregnancies.

An examination of the demographics of the sample has shown some noteworthy results. For example, twenty-three percent of the respondents that became pregnant were 15 years of age or less. Within that group, 4% were 13 years old (See Table 5.3). This shows an imminent need to begin sexuality education early. The respondents' recommendations supported the view that education/communication should begin early. Forty-seven and one-tenths percent of the sample reported they would provide an honest, open communication and education environment for their children. According to Jemmott et al. 1998, adolescents are sexually active as early as 11.8 years.

The sample was asked what they planned to do with their children to prevent them from becoming pregnant or getting someone else pregnant (See Table 5.10). According to Hoekelman (1993), Howard (1993), LeHew (1992), & Carter (1994), to have a significant impact on preventing adolescent pregnancies, primary prevention programs should be started with very young children at a stage where the likelihood of developing strong socialization, communication and decision making skills are optimal. Educationally, 60.6% of the sample were high school graduates or less. This is interesting to note that the population was largely represented by high school graduates or less. It might also be interesting to examine whether experiencing a teen pregnancy and having the responsibility of raising a child, had hindered the educational process for the population. According to Resnick, 1998, there are four risk factors associated with teen parenthood: early school failure, early behavior problems, family dysfunction, and poverty. The more risk factors, the greater the risk of teen pregnancy. This study did not collect data to answer this question.

The sample was asked to respond to why they did not use the birth control services and information that were available to them (Refer to Table 5.7). The respondents recommended several alternatives that were consistent with what had

already been shared. Counseling/education in schools and clinics was one recommendation. Greater accessibility to birth control methods and information was another recommendation (Refer to tables 5.9 & 5.13). According to Fisher et al. (1998), a highly effective way to decrease the number of adolescent pregnancies is to increase access to contraceptives for teenagers who choose to be sexually active.

As in the previous responses, parental involvement/communication was a frequent response. Again the teen needs to feel at ease to seek out the services that are available to them without the fear of feeling embarrassed. It was interesting to note the programs in which the respondents actually participated. Roughly 43% said they participated in discussions with their mother/family member. Information from friends was identified by 42% of the subjects, and 40% said they participated in school-based programs. Some of the older subjects gave responses indicating that school-based programs were not available to them. According to DiClemente, (1998), Nadler, (1998), Crabtree (1997), & Henderson (1997), Congress allocated $50 million annually for five years (1998-2002) to states for the provision of abstinence only programs that will be well supported. According to Anita Leone, executive director of the Family Planning Association in Trenton, New Jersey, "Programs really have to be comprehensive to work, which means to

stress abstinence, give students decision making skills and information about contraception" (Henderson, 1997, p1).

The respondents have consistently recommended that discussions with their mother/family member be an integral part educating and informing teenagers to prevent the incidence of teenage pregnancy. Ironically, these respondents were asked did they feel comfortable discussing their sexual feelings with their parent/legal guardian, with 79 % responding "no". This validates the opinion that teens need to feel comfortable and welcome to discuss their intimate feeling with their parent/legal guardian along with honest open communication. According to Resnick, 1998, Teens who feel emotionally connected to their parents and to their school are generally healthier and less likely to engage in risky behaviors than those who do not.

It is important that sexual education incorporating birth control begin early according to the results from this study. There were 18.2 % of the respondents who became pregnant as a result of their first sexual encounter, which is surprising, especially since 56% of the population (n=99) reported not using a form of contraceptive during their first sexual encounter (Refer to Tables 5.2). Statistically 5 in 1 respondents became pregnant as a result of not using contraceptives during their first sexual encounter. This represents a large percentage of teenagers who did not use contraceptives.

Thirty-six point four percent of the respondents had a repeat pregnancy as a teenager. This validates what was reported in the Review of Literature by Stevens-Simon et al. (1997). The prevalence of repeat adolescent pregnancies averages 30% during the first and 40% to 50% during the second postpartum year. Roughly 23 % of the respondents reported terminating a pregnancy while a teenager.

The respondents recommended what should be done to prevent a teenager's second pregnancy (Refer to Table 5.12). About 25.2% said to tie birth control to financial aid. In other words, utilize financial aid as an incentive for birth control use. There were twenty of the respondents suggested more counseling/education. Another 14.3% recommended teaching the teenager to accept responsibilities for the 1st child, to realize the difficulties of being a parent of two. According to Stevens-Simon et al.(1997), during the last decade, incentive programs and peer-support groups have become two of the most popular strategies for preventing adolescent pregnancies.

When asked, "Did you or your partner ever use contraceptives during sexual intercourse", roughly 52% reported "yes" and 48% reported "no", which is almost half of the population that never used contraceptives during intercourse. This is alarming in regards not only for prevention of pregnancy but also sexually transmitted diseases (STD's) and AIDS.

Many respondents recommended reduced exposure to the media influence. The media has the power to change attitudes. The media need to arrest glamorizing alcohol and sex as being cool. There are a few commercials that concentrate on the harmful effects of alcohol/drug use. But there is no comparison to the ones that glamorize sex and alcohol use. This response could be one that could be helpful. Only 3% recommended to allow teens that have had ill effects from alcohol and drugs to talk with other teens, which may have a impact.

Conclusion

This study provides important insights (given the fact that no previous study has focused on this issue from this perspective) on the views and recommendations of women that became pregnant as teenagers. Through the respondents we have viewed their sexual history and behaviors. They were given an opportunity to provide their recommendations.

Specific Recommendations for Practice

Several recommendations were directly tied to communication. One recommendation was to encourage parents to be honest and provide open communication as well as to become involved in their child/children's lives. Another recommendation was to provide for more counseling/education in school and clinics. A third recommendation was to teach leadership skills, self-confidence, self-esteem and other life skills. Respondents were repeatedly emphasizing the need for parents and community leaders to be aware that teenagers are sexually active and to be an active participant in the encouragement of abstinence. The next recommendation was to focus on the risk/consequences associated with alcohol/drug use in terms of education. Similarly, another recommendation of the study was to discuss responsibilities and consequences of being a teen mother.

Several other recommendations dealt with encouraging birth control use and making low cost birth control available. It was also recommended to advertise the availability of low cost birth control. A very common recommendation was to tie birth control to financial aid and to use financial aid incentives for birth control.

Other very closely related recommendations were to discuss responsibilities to provide access to birth control methods and information, and to have older teenagers work with younger ones to provide information and counseling.

Recommendations for Health Educators

Parents need to be involved with their child's development in their sexuality educational curriculum. In order for parents to feel comfortable educating their adolescents about sexuality education, they themselves need to be educated. Parents, community leaders, and clergy need to realize teens are becoming sexually active at a young age. Therefore, education needs to begin early. May these suggestions for recommendations help with the continuation of decreased adolescent pregnancy.

Recommendations for Further Studies

Due to the small sample size this study needs to be done on a larger scale to validate these findings and to replicate the results.

References

Brown-Peterside, P., & Laraque, D. (1998). Interactive computer game encourages adolescents to delay parenthood. American Journal of Public Health, 87, (9), 1563-1564.

Carter, D., Felice, M. E., Rosoff, J., Schwab, Z.,Beilenson, P. L., & Dannenberg, A. (1994). When children have children: The teen pregnancy predicament. The American Journal of Preventative Medicine, 10, (2), 108-112 .

Crabtree, S. (1997, September 8). Facts of life vs. facts of love. Insight, 16-17.

DiClemente, R.J. (1998). Preventing sexually transmitted infections among adolescents: A clash of ideology and science. The Journal of the American Medical Association, 279, (19), 1574-1576.

Durbin, M., DiClemente, R. J., Siegal, D., Krasnovsky, F., Lazarus, N., & Camacho, T. (1993). Factors associated with multiple sex partners among junior high school students. Journal of Adolescent Health, 14, 202-207.

Edet, E. E. (1991). The role of sex education in adolescent pregnancy. Journal of the Royal Society of Health, 3, (1), 17-18

Fisher, J. L., Harris, K. J., Ransom, M.V., Paine-Andrews, A., & Pulliam, S. (1998). Increasing access to contraceptives: On the map and in the bag. The American Journal of Public Health, 88, (8), 1248-1249.

Farrington, J. (1995). Sex and responsibility; What does the "R" word mean to you? Current Health 2, 22, (1), 1-4.

Hellerstedt, W. (1998). Trends in teen reproductive behavior: Division of General Pediatrics and Adolescent Health, 1, (1), 6-9.

Henderson, C. (1997, April 21). Teens could get new message on waiting for sex. AIDS Weekly Plus, 27-28.

Hoekelman, R. (1993). A pediatrician's view; teenage pregnancy-one of our nation's most challenging dilemmas. Pediatric Annals, 22, (2), 81-82.

Holt, J. L. & Johnson, S. D. (1991). Developmental tasks: A key to reducing teenage pregnancy. Journal of Pediatric Nursing 6, (3), 191-196.

Howard, M. & Mitchell, M. E. (1993). Preventing teenage pregnancy: Some questions to be answered and some answers to be questioned. Pediatric Annals, 22, (2), 109-118.

Jemmott, J.B. , Jemmott, L.S., & Fong, G.T. (1998). Abstinence and safer sex HIV risk reduction interventions for African American adolescents: a randomized controlled Journal trial. The Journal of the American Medical Association, 279, (19), 1529-1536.

LeHew, W. L. (1992). Teenage pregnancy prevention: the vital importance of the medical Community's involvement. American Journal of Obstetrics and Gynecology, 167, (2), 299-302.

Nadler, R. (1997). Abstaining from sex education. National Review, 49, (17), 50-51.

Resnick, M. (1998). Connections make a difference in the lives of youths. Division of General Pediatrics and Adolescent Health, 1, (1), 3.

Stevens-Simon, C., Dolgan, J.I., Kelly., L., & Singer, D. (1997). The effect Monetary incentives and peer support groups on repeat adolescent pregnancies. The Journal of the American Medical Association, 277, (12), 977-982.

Trad, P. V. (1993). Adolescent pregnancy: An intervention challenge. Child Psychiatry and Human Development, 24, (2), 99-111.

Appendix A

Section I: Demographics

Please answer the following questions about yourself.

Please state your age: _____years

Education Completed

1. ☐ Grade School	4. ☐ Some College
2. ☐ Some High School	5. ☐ College Graduate or Beyond
3. ☐ High School Graduate	6. ☐ Trade School

Ethnicity

1. ☐ Hispanic American	4. ☐ White
2. ☐ Asian American	5. ☐ Native American
3. ☐ African American	6. ☐ Other

State your occupation _____

Marital Status

1. ☐ Single	4. ☐ Separated
2. ☐ Married	5. ☐ Divorced
3. ☐ Widowed	6. ☐ Other

Section I: Demographics (continued)

At what age did you first become pregnant? _____

How many pregnancies have you had? _____

Were any of your pregnancies terminated as a teenager?

1a. ☐ Yes	2. ☐ No
1b. If yes, How were they terminated?	1. ☐ Abortion 2. ☐ Miscarriage

Please make any additional comments.

_____

_____

_____

_____

Section II: Sexuality Education/Information

Can you tell me about the sexuality education/information that was made available to you when you were a teenager ?

1. Can you tell me which of the following types of pregnancy prevention programs were available to you when you were a teenager?

Check all that apply

1. ☐ School Based Programs
2. ☐ Discussion by your mother/family member
3. ☐ Church Based Programs
4. ☐ Programs through doctor's office/clinic
5. ☐ Education materials
6. ☐ Information from friends
7. ☐ Other – Please be specific

COMMENTS

2. In which programs did you actually participate?

Check all that apply

1. ☐ School Based Programs
2. ☐ Discussion by your mother/family member
3. ☐ Church Based Programs
4. ☐ Programs through doctor's office/clinic
5. ☐ Education materials
6. ☐ Information from friends
7. ☐ Other – Please be specific

COMMENTS

3.Can you tell me which of the following you found to be most helpful to you?

Please rank in order of what's been most helpful.

Example: 1- most helpful

7 - least helpful

1. ☐ School Based Programs
2. ☐ Discussion by your mother/family member
3. ☐ Church Based Programs
4. ☐ Programs through doctor's office/clinic
5. ☐ Education material (magazine, TV,etc.)
6. ☐ Information from friends
7. ☐ Other – Please be specific

COMMENTS

4. If you did not use any of the available services, what was the main reason why?

1. ☐ No time
2. ☐ Inconvenience
3. ☐ Embarrassment
4. ☐ Cost
5. ☐ Fear (parents)
6. ☐ Peer pressure
7. ☐ Partner didn't want me to
8. ☐ Other (Please be specific)

5. Which of the following approaches do you think would be most effective in trying to prevent teenagers <u>today</u> from getting pregnant?

.

Please select ones that apply and rank in order of most effective:

Example 1-Most effective,

7- Least Effective

1. ☐ One on one counseling
2. ☐ Group classes
3. ☐ Readily available reading material
4. ☐ Available videos for teens to watch
5. ☐ Having teens write theme papers about teenage pregnancy.
6. ☐ Having older teenagers work with younger ones to provide information and counseling
7. ☐ Other – Please be specific

Please make any additional comments

Section III: Sexual Behavior as a Teenager

The following questions are about your sexual behavior when you were a teenager. "Thinking back about the first time you had sex....

6a. Did you get pregnant as a result of your first sexual encounter?

1. ☐ Yes 2. ☐ No
3. ☐ Don't Know

6b. Did you and your partner(s) discuss sexual intimacy prior to intercourse?

1. ☐ Yes 2. ☐ No
3. ☐ Don't Remember

7. At the time of your first sexual encounter did you use a form of a contraceptive?

1. ☐ Yes 2. ☐ No
3. ☐ Can't Remember

8. Did you feel pressured or influenced by your partner to have sexual intercourse?

1. ☐ Yes 2. ☐ No

9a.. Did you or your partner ever use contraceptives during sexual intercourse?

1. ☐ Yes 2. ☐ No

9b. If so, how often?

1. ☐Almost Never 3. ☐ Most of the time
2. ☐ Sometimes 4. ☐ Always

10 a. At the time of your first sexual encounter did you use alcohol or drugs?

1. ☐ Yes 2. ☐ No
3. ☐ Can't Remember

10 b. If yes, Do you think alcohol/drugs influenced your decision?

1. ☐ Yes 2. ☐ No
3. ☐ Can't Remember

11a. Did you take a sexuality education course prior to becoming pregnant?

1. ☐ Yes 2. ☐ No

11b. If so, where?

1. ☐ School Based Programs
2. ☐ Discussions at home
3. ☐ Church Based Programs
4. ☐ Other (Please specify)

12. To what extent were responsible sexual behaviors taught in your home?

1. ☐ Never
2. ☐ Some
3. ☐ A lot
4. ☐ Always

13. What types of information or support would have been most helpful to you that could have prevented your pregnancy from happening?

Check all that apply.

1. ☐ Experiences for decision making skills
2. ☐ Information about contraception
3. ☐ Information about communication with your partner
4. ☐ Information about abstinence
5. ☐ Information about intercourse
6. ☐ Other (Please be specific)

14. What is the one thing that might have prevented you from becoming pregnant as a teenager? Please be specific.

Section IV: Past and Future Education

How were you educated, and what are your plans on educating your child/children about prevention of pregnancy?

15. Did you have more than one pregnancy as a teenager? 1. ☐ Yes 2. ☐ No

16. Were contraceptives discussed in your home? 1. ☐ Yes 2. ☐ No

17. Were the consequences of sexual intercourse discussed with your parents/legal guardian? 1. ☐ Yes 2. ☐ No

18. Did you feel comfortable discussing your sexual feelings with your parents/legal guardians? 1. ☐ Yes 2. ☐ No

19. What should be done to get more teenagers who have had sex to use contraceptives?
Please be specific.

20. In your opinion, what should be done to prevent a teenager's second pregnancy?
Please be specific.

21. Can you tell me what you plan to do with your child/children to prevent them from becoming pregnant or from getting someone pregnant while they are a teenager?

Please be specific. Try to think about what you will do, not what you think should be done.

Section V: Recommendations

Would you give any recommendations that you may have on decreasing the incidence of teenage pregnancies?

22. What should be done to get more teenagers to seek birth control information and services?

23. What should be done to teach children to handle peer pressure, as they become teenagers?

24 What should be done to either prevent or delay the beginning of sexual activity by teenagers?

25a. What recommendations would you offer to others in preventing teenagers from using alcohol and/or drugs?

25b. What recommendation would you offer to others in preventing teenagers from having sex when using alcohol and/or drugs?

Please add any additional comments or notes

Appendix B

University of Nebraska at Omaha

School of Health, Physical Education and Recreation
Omaha, Nebraska 68182-0216
(402) 554-2670

IRB # 269-98

ADULT UNSIGNED INFORMED CONSENT FORM

TITLE OF THE RESEARCH STUDY

WOMEN WHO BECAME PREGNANT AS TEENAGERS: THEIR VIEWS ON HOW TO DECREASE THE INCIDENCE OF TEENAGE PREGNANCY.

You are invited to participate in this research study. The following information is provided in order to help you make an informed decision whether or not to participate. If you have questions please do not hesitate to ask.

You are eligible to participate in this study because you are over the age of 19 years old and became pregnant between your 13th and 19th birthday.

The purpose of this study is to ask for recommendations of women who became pregnant as teenagers about the best approaches for decreasing teenage pregnancy. This information may be helpful in developing more proactive pregnancy prevention programs that are more effective than the programs now being used.

You are being asked to fill out a questionnaire that consists of 36 questions. It should take approximately 15 to 20 minutes to answer the questions. The questions will have you review your past sexuality education, sexual behavior as a teenager, your plans for sexuality education for your children, and recommendations about decreasing teenage pregnancy.

There are questions that examine your sexual behavior while you were a teenager, which may be sensitive in nature to you. If any subjects require counseling, assistance may be available through Catholic Charities (Counseling Center) 3300 N 60th Street, Omaha, NE (402)554-0520 and Lutheran Family Services of Nebraska Inc. 120 S. 24th Street, Omaha, NE (402)342-7007

There is no direct benefit to the individual subjects who participate in this project.

The benefits of the study will be an increased understanding of teenage pregnancy and the identification of effective pregnancy prevention approaches and strategies.

You may participate on your own free will.

You will not be paid to participate.

There will be no record kept to identify you. You will be asked to place any information obtained during this study into a box with a slit placed in it. The questionnaires will be removed daily by one of the researchers and placed in a locked file drawer in the clinic until processed. Your participation will be kept strictly confidential. The information obtained in this study may be published in scientific journals or presented at scientific meetings, but your identity will be kept strictly confidential.

Your rights as a research subject have been explained to you. If you have any additional questions concerning your right, you may contact the University of Nebraska Institutional Review Board (IRB), telephone 402/559-6463.

You are free to decide not to enroll in this study or withdraw at any time without adversely affecting your relationship with the investigator or the University of Nebraska.

IRB APPROVED
VALID UNTIL 9/17/99

DOCUMENTATION OF UNSIGNED INFORMED CONSENT

YOU ARE VOLUNTARILY MAKING A DECISION WHETHER OR NOT TO PARTICIPATE IN THIS STUDY. YOUR AGREEMENT TO VOLUNTARILY FILL OUT THE QUESTIONNAIRE CERTIFIES THAT YOU HAVE DECIDED TO PARTICIPATE HAVING READ AND UNDERSTOOD THE INFORMATION PRESENTED. YOU WILL BE GIVEN A COPY OF THIS UNSIGNED CONSENT FORM TO KEEP.

IDENTIFICATION OF INVESTIGATOR

PRIMARY INVESTIGATOR
Anna Kellogg, RN, BSN Office: (402) 559-6363

SECONDARY INVESTIGATOR
Dr, Judith Heerman, Office: (402) 559-8815

PARTICIPATING PERSONNEL
Staff Registered Nurses and Certified Nurse Midwives from:
University Medical Associates
UNMC OB-Gyn Clinic
Staff Registered Nurses
Mary C. Junker RN, BSN (402)559-4212
Jodi Frodyma RN (402)559-4212
UNMC OB-Gyn Clinic
Certified Nurse Midwives
Martha Groggel RN, PhD, NP,CNM (402)559-4212
Heather D. Ramsey RN, CNM (402)559-4212
Bridget Wieczorek RN, CNM (402)559-4212

Eagle Run Family Medicine Clinic
Pat Linn RN, Clinic Manager (402)595-3993
Melissa Whitney RN (402)595-3993

Family Medicine Clinic
Colleen Kelley RN,BSN Clinic Manager (402)559-7200
Char Elam RN, (402)559-7200
Katherine Hansen RN, BSN (402)559-7200
Katie Goltl RN, BSN (402)559-7200
Deb Romaire RN, BSN (402)559-7200

IRB APPROVED
VALID UNTIL 9/17/99

UNIVERSITY OF NEBRASKA MEDICAL CENTER
UNIVERSITY HOSPITAL & UNIVERSITY MEDICAL ASSOCIATES

UNMC FAMILY PRACTICE PRENATAL RECORD

Patient Identification (Stamp)

NAME

REG. NO.

LOCATION

DATE

Date _____
Physician _____
Referring physician _____
Patient's age_____ Race_____ Religion _____
Occupation_____ Education _____
Home phone_____ Work phone _____
Address _____
Married _____ Y _____ N
Baby's father's name _____
Age_____ Occupation _____
Home phone_____ Work phone _____
Emergency contact _____
Relationship_____ Phone _____
INSURANCE name & number _____

Final EDD	Blood Type
_____/_____/_____	Rh
Allergies	Rubella

MENSTRUAL HISTORY

LMP_____ Certain _____Y _____N Monthly Menses _____Y _____N
Normal duration/amount _____Y _____N Frequency q_____days Menarche_____
Pregnancy Planned _____Y _____N Contraception _____Y _____N Type _____
HCG pos _____/_____/_____ Date stopped _____/_____/_____

OBSTETRICAL HISTORY

GRAVIDA_____ FULL TERM_____ PRETERM_____ AB_____ LIVING_____ ECTOPIC_____ C. SECTION_____

Month Year	Place	GA Weeks	Length of Labor	Type of Delivery	Sex	Birth Weight	Complications/ Comments

PAST MEDICAL HISTORY (Circle and Detail Positive)

1. Diabetes mellitus
2. Hypertension
3. Heart disease
4. Rheumatic fever
5. Pulmonary/Asthma
6. Kidney/UTI
7. GI
8. Thyroid/Endocrine
9. Neuro/Seizures
10. Psychiatric
11. Varices/DVT
12. Anemia
13. Cancer
14. Accidents
15. Gyn Surgery
16. Other Surgery

Anesthesia complications
18. Blood transfusion
19. Abnormal PAP
Infertility

Detail positive(s) _____

INFECTION HISTORY

1. High risk for AIDS
2. High risk for Hep B
3. High risk for TB
4. Rash or viral illness since LMP
5. Patient or partner with Hx of genital herpes
6. Hx of GC, CT, HPV, Syphilis, PID, other STD
7. Exposure to Cats

Detail positive(s) _____

UH-129 (12/94)

Patient Addressograph

DATE _____

NAME _____
LAST FIRST MIDDLE

ID # _____ HOSPITAL OF DELIVERY _____

NEWBORN'S PHYSICIAN _____ REFERRED BY _____

FINAL EDD _____ PRIMARY PROVIDER/GROUP _____

BIRTH DATE MONTH DAY YEAR	AGE	RACE	MARITAL STATUS S M W D SEP	ADDRESS:
OCCUPATION ☐ HOMEMAKER ☐ OUTSIDE WORK ☐ STUDENT Type of Work			EDUCATION (LAST GRADE COMPLETED)	ZIP: PHONE: (H) (O) INSURANCE CARRIER/MEDICAID #
HUSBAND/FATHER OF BABY:			PHONE:	EMERGENCY CONTACT: PHONE:

TOTAL PREG	FULL TERM	PREMATURE	AB, INDUCED	AB, SPONTANEOUS	ECTOPICS	MULTIPLE BIRTHS	LIVING

MENSTRUAL HISTORY

LMP ☐ DEFINITE ☐ APPROXIMATE (MONTH KNOWN) ☐ UNKNOWN ☐ NORMAL AMOUNT/DURATION ☐ FINAL _____ MENSES MONTHLY ☐ YES ☐ NO PRIOR MENSES _____ DATE FREQUENCY: Q _____ DAYS ON BCP AT CONCEPT. ☐ YES ☐ NO MENARCHE _____ (AGE ONSET) hCG + ____ / ____ / ____

PAST PREGNANCIES (LAST SIX)

DATE MONTH / YEAR	GA WEEKS	LENGTH OF LABOR	BIRTH WEIGHT	SEX M/F	TYPE DELIVERY	ANES.	PLACE OF DELIVERY	PRETERM LABOR YES / NO	COMMENTS / COMPLICATIONS

PAST MEDICAL HISTORY

	O Neg + Pos.	DETAIL POSITIVE REMARKS INCLUDE DATE & TREATMENT
1. DIABETES		
2. HYPERTENSION		
3. HEART DISEASE		
4. AUTOIMMUNE DISORDER		
5. KIDNEY DISEASE / UTI		
6. NEUROLOGIC/EPILEPSY		
7. PSYCHIATRIC		
8. HEPATITIS / LIVER DISEASE		
9. VARICOSITIES / PHLEBITIS		
10. THYROID DYSFUNCTION		
11. TRAUMA/DOMESTIC VIOLENCE		
12. HISTORY OF BLOOD TRANSFUS.		

	AMT/DAY PREPREG	AMT/DAY PREG	#YEARS USE
13. TOBACCO			
14. ALCOHOL			
15. STREET DRUGS			

	O Neg + Pos.	DETAIL POSITIVE REMARKS INCLUDE DATE & TREATMENT
16. D (Rh) SENSITIZED		
17. PULMONARY (TB, ASTHMA)		
18. ALLERGIES (DRUGS)		
19. BREAST		
20. GYN SURGERY		
21. OPERATIONS / HOSPITALIZATIONS (YEAR & REASON)		
22. ANESTHETIC COMPLICATIONS		
23. HISTORY OF ABNORMAL PAP		
24. UTERINE ANOMALY/DES		
25. INFERTILITY		
26. RELEVANT FAMILY HISTORY		
27. OTHER		

COMMENTS: _____

The American College of Obstetricians and Gynecologists, 409 12th Street, SW, PO Box 96920, Washington, DC 20090-6920

ACOG ANTEPARTUM RECORD (FORM A)

University of Nebraska at Omaha

School of Health, Physical Education and Recreation
Omaha, Nebraska 68182-0216
(402) 554-2670

Dear clinic visitor:

We are surveying all women who became pregnant between their 13th and 19th birthdays to investigate their views and recommendations on the most effective approaches and techniques for decreasing the incidence of teenage pregnancy. Thus far very few studies have focused on examining the recommendations and opinions of women who became pregnant as teenagers despite the fact that the incidence of teenage pregnancy continues to rise in epidemic proportions. If you agree to participate in this study, you will be asked to spend about 15-20 minutes in completing the attached questionnaire. Some of the questions may be sensitive in nature to you. Included with this letter is an unsigned consent form that will need to be reviewed by yourself and you will be given the opportunity to ask questions prior to receiving the questionnaire.

Your assistance is greatly appreciated. Upon leaving please return the questionnaire to the designated survey box with the slit in it. There will be no records kept in regards to your identity and the information will be kept in the strictest confidence in a locked file drawer.

Sincerely,

Anna M Kellogg

Anna M. Kellogg, RN, BSN
Primary Investigator

Judith Heermann

Judith Heermann RN, PhD
Secondary Investigator

IRB APPROVED
VALID UNTIL 9/19/99

Appendix C

Institutional Review Board (IRB)
Office of Regulatory Affairs (ORA)
University of Nebraska Medical Center
Eppley Science Hall 3018
986810 Nebraska Medical Center
Omaha, NE 68198-6810
(402) 559-6463
Fax (402) 559-7845
E- mail: irbora@unmc.edu
http://info.unmc.edu/irb/irbhome.htm

October 15, 1998

Anna Kellogg, R.N., B.S.N.
HPER
UNO 0216

IRB # 269-98

TITLE OF PROPOSAL: Women Who Became Pregnant as Teenagers; Their Views on How to Decrease the Incidence of Teenage Pregnancy

DATE OF FULL BOARD REVIEW 09/17/98 DATE OF EXPEDITED REVIEW _____

DATE OF FINAL APPROVAL 10/15/98 VALID UNTIL 09/17/99

The Institutional Review Board (IRB) for the Protection of Human Subjects has completed its review of the above-titled protocol and informed consent document(s), including any revised material submitted in response to the IRB's review. The Board has expressed it as their opinion that you are in compliance with HHS Regulations (45 CFR 46) and applicable FDA regulations (21 CFR 50.56) and you have provided adequate safeguards for protecting the rights and welfare of the subjects to be involved in this study. The IRB has, therefore, granted unconditional approval of your research project. This letter constitutes official notification of the final approval and release of your project by the IRB, and you are authorized to implement this study as of the above date of final approval.

We wish to remind you that, under the provisions of this institution's Multiple Project Assurance for compliance with DHHS Regulations for the Protection of Human Subjects (MPA #1509), the principal investigator is directly responsible for submitting to the IRB any proposed change in the research or the consent document(s). In addition, any unanticipated adverse events involving risk to the subject or others must be reported to the IRB. This project is subject to periodic review and surveillance by the IRB and, as part of their surveillance, the IRB may request periodic reports of progress and results. For projects which continue beyond one year from the starting date, it is the responsibility of the principal investigator to initiate a request to the IRB for continuing review and update of the research project.

Sincerely,

EPrentice/lc

Ernest D. Prentice, Ph.D.
Vice Chairman, IRB

EDP/lmc