This is to certify that the

dissertation entitled

Contraceptive Risk-taking Among Female Adolescents

presented by

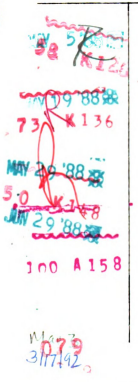
Lynn Ann Snellman

has been accepted towards fulfillment
of the requirements for

Masters degree in Psychology

Major professor

Date 7-18-85



CONTRACEPTIVE RISK-TAKING AMONG FEMALE ADOLESCENTS

By

Lynn A. Snellman

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Psychology
1985

ABSTRACT

CONTRACEPTIVE RISK-TAKING AMONG FEMALE ADOLESCENTS

By

Lynn A. Snellman

This study utilized a decision-making perspective in its investigation of contraceptive risk-taking among female adolescents. Although many studies have addressed this topic, few researchers have taken a multivariate approach in investigating factors related to contraceptive use. Similarly, few studies have investigated female adolescents' self-reported reasons for contraceptive non-use. Thirty-six young women were extensively interviewed to assess (1) the degree to which they were risking unplanned pregnancy, (2) factors related to their contraceptive use, and (3) their self-reported reasons for contraceptive non-use. Based upon their contraceptive practices, these young women comprised two groups: (1) those who always used an effective birth control method, and (2) those who either used an effective method inconsistently, used an ineffective method, or did not use any birth control. Two-group discriminant analysis using five predictor variables failed to significantly discriminate between the two groups. The self-reported reasons for contraceptive non-use are presented and discussed. Cautions and considerations for future research are also presented.

ACKNOWLEDGMENTS

First and foremost, I would like to thank my chairperson, Robin Redner, for her unflagging guidance and support. I am also grateful to my other committee members -- Bill Davidson and Jeff Taylor -- for their interest, encouragement, and valuable suggestions.

The completion of this thesis would not have been possible without the additional support of my family and friends. My husband, Tony DiPiazza, deserves special thanks for his loving support and patience throughout the lengthy process of attaining my Masters degree.

I would also like to acknowledge the valuable assistance I received from Karen Haynes and the other staff members at the Ingham County Family Planning and Prenatal Clinic.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

INTRODUCTION

This thesis presents an investigation into the problem of contraceptive risk-taking among female adolescents. It explores both the extent to which sexually active young women risk pregnancy by failing to use birth control and the various factors associated with this risk-taking. This introductory chapter is divided into four sections. The first section presents the facts which support the assertion that contraceptive risk-taking among female adolescents is an important social problem in the United States today. The second section presents an overview and critique of prior research which has investigated factors associated with contraceptive use among female adolescents. The third section presents an overview of a number of theoretical perspectives regarding contraceptive risk-taking and attempts to apply these perspectives to the present study. Finally, the fourth section presents the goals of the present study.

The Problem of Teenage Pregnancy

Teenage pregnancy has long been recognized as a major social problem in the United States. Approximately 1 in 10 female teens becomes pregnant each year, which translates into more than 1 million teenage pregnancies (Alan Guttmacher Institute, 1981). Two-thirds of these teenage pregnancies are unintended, with 77% occuring premaritally (Zelnik & Kantner, 1978b).

In 1980, more than 562,000 of these pregnancies resulted in birth (National Center for Health Statistics, 1984, Table 1-52). Although the birth rate among adolescents has been declining (i.e., from a rate of 91 births per 1,000 in 1960 to a rate of 54 births per 1,000 in 1980 [National Center for Health Statistics, 1984, Table 1-14]), this decline has failed to keep pace with concurrent declines among older age groups. As a result, the proportion of U.S. births occurring to teens has remained high; in 1980, births to teens comprised 16% of the total number of U.S. births (percentage computed from National Center for Health Statistics, 1984, Table 1-52).

Teens' Increased Risk of Conception

Judging from recent historical trends, it appears highly unlikely that the rate of sexual activity among female adolescents will decline. In 1971, Miller and Simon surveyed a stratified sample of 2,064 white 14-17 year olds residing in Illinois regarding their sexual behavior.

Comparing their results to percentages computed from Kinsey's (1948) data, they found that the proportion of males experiencing coitus by the age of 16 or 17 had dramatically decreased (from 56% to 21%), while the proportion among females had dramatically increased (from 8% to 22%), thus eliminating the previously documented sex differential (Miller & Simon, 1974). Zelnik and Kantner (1980), comparing the results of their national household survey of 15-19 year old females conducted in 1979 with similar surveys conducted in 1971 and 1976, report that although the average age at first intercourse has remained stable, the proportion of female teens with premarital sexual experience has been increasing (from 30% in 1971 and 43% in 1976, to 50% in 1979). In addition, pregnancy data from their survey indicates a probable increase in the frequency of intercourse among sexually active teens (since there has been an increase in the proportion of pregnancies among those never using contraception).

The proportion of sexually experienced teens who have experienced a pregnancy has similarly been increasing (from 28% in 1971, and 30% in 1976, to 33% in 1979), despite concurrent increases in contraceptive use. This appears to be due, in part, to increases in utilization of the least-effective methods of contraception, especially withdrawal (Zelnik & Kantner, 1980).

It is evident that the trends in sexual behavior among female adolescents increase their risk of unintended and/or

illegitimate pregnancy. One obvious countermeasure to this increase is efforts aimed at increasing consistent use of effective methods of contraception among sexually active teens. However, investigating contraceptive use among teens in the hope of discovering means by which to increase effective contraception is certainly not a value-free or cost-free proposition. To substantiate the necessity for such an investigation, it is useful to briefly review the negative outcomes associated with teenage pregnancy.

Negative Effects of Teenage Pregnancy

Much has been written about the negative consequences of teenage pregnancy (e.g., Alan Guttmacher Institute, 1981; Family Planning Perspectives, 1976). However, the causal link between teenage pregnancy and these consequences is controversial. Recent reviews (e.g., Chilman, 1979) conclude that many of the negative effects observed are actually the result of preexisting social, psychological, and economic factors rather than the result of an early pregnancy per se. Among pregnant teens, the observed negative effects are generally more severe the younger the teen, and in some cases, when the data concerning older teens is examined separately from that on younger teens, the negative effects are actually nonexistent (Menken, 1972). The type and severity of negative effects obviously depend upon pregnancy outcome. The effects of pregnancy on those teens who elect to terminate their pregnancy through abortion will therefore

be treated separately.

Pregnancies carried to term. The vast majority (96%) of adolescent mothers decide to keep their babies, rather than opting for adoption (Alan Guttmacher Institute, 1981). The effects of an early pregnancy carried to term are therefore, in most cases, the effects of early motherhood. Early motherhood is associated with negative outcomes in every aspect of the lives of both the adolescent and her child -- physical, economic, and social -- as well as having negative impacts on society. For example, teenagers have higher rates of serious physical complications of pregnancy such as toxemia, pre-eclampsia, and prolonged labor (Baldwin, 1976), as well as a host of less-serious complications such as iron-deficiency anemia and premature labor (Kreutner & Hollingsworth, 1978). Maternal and infant mortality rates are higher among teens -- infant mortality for white mothers under 15 is more than twice that of white mothers in their early 20s (Menken, 1972). Teenage pregnancy involves an increased risk of intrauterine fetal growth retardation and prematurity, which translate into low infant birth weight, which is associated with an increased incidence of physical and mental handicaps including cerebral palsy, epilepsy, and mental retardation (Baldwin, 1976; George Washington University Medical Center, 1976).

The negative economic consequences of teenage motherhood are due to both educational and vocational factors. A longitudinal study conducted in 1968, which

surveyed a representative national sample of 14-24 year old females, found that there was a positive relationship between age at first birth and number of years of schooling completed, even after controlling for race and socioeconomic status (Moore & Waite, 1977). Thus, the younger the adolescent mother, the less schooling completed. A 6-year longitudinal study of teenage mothers and their former classmates, initiated in 1966 with 404 mostly black and working/lower class prenatal patients, found significantly different educational achievement among the teenage mothers versus their former classmates (with only 18% of the teenage mothers having completed high school at the 6-year follow-up, compared to 51% of their former classmates) (Furstenberg, 1976). The former classmates were also more likely to be working, more likely to be self-supporting, and had a median annual per-capita income two-thirds higher than that of the teenage mothers. The 1967 Survey of Economic Opportunity showed similar evidence of an association of teenage child-bearing with less schooling, lower income, and increased poverty and dependency (Trussell, 1976). These effects were also observed in a survey of a representative sample of women who had their first child in July of 1970, 1971, or 1972 (Family Planning Perspectives, 1976). This study found that teenage mothers were less likely to graduate from high school than were those bearing their first child at subsequent ages (i.e., 33% of the 15-19 year old mothers graduated, versus 87% of 20-23 year old

mothers). The teenage mothers were also less likely to have worked and were more likely to have received some form of public assistance.

The 6-year longitudinal study previously mentioned (Furstenberg, 1976) also presented results regarding the social effects of early motherhood. The teenage mothers were more likely to be married both before and after age 18 than were their former classmates. However, a high proportion of their marriages ended in divorce (one-fifth within 1 year, one-third within 2 years, and three-fifths within 6 years) -- about twice the proportion of marital dissolution occuring among their former classmates. The 1973 National Survey of Family Growth found a similar association between age at first birth and the probability of marriage dissolution of second marriages (McCarthy, 1978), and this association has also been observed in terms of the probability of dissolution of second marriages (McCarthy & Menken, 1979). Adolescent motherhood is also associated with more rapid subsequent childbearing, irrespective of marital status at first birth (data from 1970 National Fertility Study, reported by Bumpass, Rindfass, & Janusid, 1978). Thirty-two percent of teen mothers had another birth within 18 months of their first, with the associated risks to both mother and child being even more pronounced than those resulting from the first pregnancy and childbirth (Baldwin, 1976).

The adolescent mother has been described as "having 90%

of her life script written for her" (Menken, 1972). More than likely, there will be a termination of her ambitions, goals, and planning for the future upon the birth of her infant (Osofsky, 1968).

Pregnancies terminated by abortion. In 1975, one-third of the legal abortions in the U.S. were performed on teens (Alan Guttmacher Institute, 1981). Despite this large proportion, few studies have investigated the effects of abortion on this age group. The possible adverse physical complications of abortion are highly dependent upon how late in the pregnancy it is performed. Teens, who are disproportionately represented among the late aborters (34% of teens younger than 15 and 21% of teens aged 15 to 19 are late aborters, versus only 13% of those women over 35 [Pakter, Nelson, & Svigir, 1975]), are therefore at greater physical risk. One of the few published studies of young abortion patients (Perez-Reyes & Falk, 1973) reports that their physical and mental health was considerably better following the abortion than immediately preceding it; however, this does not offer any insight regarding how their health compared to that before their pregnancy, nor does it address the possibility of delayed negative effects. Evans, Selstad, and Welcher (1976) found that 20% of the adolescents interviewed regretted their abortion at six months post. However, a number of other studies that investigate the psychological effects of abortion, although not specifically focusing on adolescents, tend to show few

apparent negative psychological consequences (e.g., Athanasiou, 1973; Osofsky, Osofsky, & Rajan, 1973).

Overview and Critique of Relevant Literature

A wide variety of populations have been surveyed regarding their contraceptive practices. The present review will limit itself to those studies involving female adolescents, rather than including studies of undergraduate college students (who comprise the more accessible, and thus more widely studied, population). First, a brief overview of the factors found to be related to contraceptive use among female adolescents will be presented in order to illustrate the wide range of variables which have been investigated. Second, those studies investigating self-reported reasons for contraceptive non-use will be reviewed. Finally, the two major shortcomings of the existing research in terms of utility for developing intervention strategies will be presented. Specifically discussed will be the lack of a standard definition of contraceptive use and the failure of the existing research to provide insight into the causes of contraceptive risk-taking.

Factors Associated with Contraceptive Use

In reviewing studies which have investigated factors related to contraceptive use, it is a practical necessity to ignore for the moment the fact that these studies utilize a wide range of definitions of contraceptive use. This problem

will be addressed later under "Shortcomings of the Existing Research."

The myriad factors which have been found to be associated with contraceptive use will be grouped into seven categories for the purpose of this overview. These categories are demographic variables, knowledge variables, attitudinal variables, personality variables, interpersonal variables, experiential variables, and situational variables. Table 1 presents a summary of the reported categories of variables investigated for the studies reviewed. This table does not distinguish between significant and nonsignificant results. Three national studies which represent the state of the art in this research area will be discussed at length in the "Demographic Variables" subsection of this overview.

Demographic variables. The most ambitious and well-known attempts at investigating factors related to contraceptive use are three national household surveys of probability samples of 15-19 year old females conducted in 1971, 1976, and 1979 (Kantner & Zelnik, 1973; Zelnick & Kantner, 1977, 1978a, 1979, 1980). The results presented for the 1971 survey (the survey for which the presented results are most detailed) include demographic, attitudinal, interpersonal, and experiential factors. The actual usefulness of the survey results is, however, jeopardized by Zelnik and Kantner's presentation, which consists of an incomplete and confusing array of combinations of independent and dependent variables. The independent

TABLE 1

TYPES OF VARIABLES REPORTED FOR EACH OF THE STUDIES REVIEWED

Study	Variables						
	Demographic	Knowledge	Attitudes	Personality	Interpersonal	Experiential	Situational
Adelson, 1975				x			
Chilman, 1979				x			
Cobliner, 1974				x			
Cvetkovich et al., 1975		x		x			
Cvetkovich et al., 1978	x				x	x	
Diamond et al., 1973		x		x	x		
Evans et al., 1976						x	
Finkel & Finkel, 1975					x		
Furstenberg, 1976					x		
Gebhard, 1977					x		
Goldsmith et al., 1972	x			x			
Hatcher, 1973				x			
Kane & Lachenbruch, 1975		x					
Kantner & Zelnik, 1973	x	x	x	x	x		
Kastner, 1980	x	x	x	x	x		
Luker, 1975					x		
Mindick et al., 1978	x		x	x	x	x	
Pannor et al., 1971				x			

TABLE 1 -- continued

Study	Variables						
	Demographic	Knowledge	Attitudes	Personality	Interpersonal	Experiential	Situational
Reichelt, 1979				x			
Reichelt & Werley, 1976		x					
Rogel et al., 1980	x		x	x	x		
Rogel et al., 1981						x	
Rogel et al., 1982				x	x		
Scales, 1977					x		
Shah et al., 1975	x	x		x		x	x
Spanier, 1977		x			x		
Thornberg, 1972					x		
Torres, 1978					x		
Zabin et al., 1979	x					x	
Zelnik, 1979		x					
Zelnik & Kantner, 1977	x						
Zelnik & Kantner, 1978a	x						
Zelnik & Kantner, 1979		x		x	x	x	
Zelnik & Kantner, 1980	x						

variables (i.e., factors associated with contraceptive use) which are presented include age, place of residence, size of area residing in, parents' education, family income, poverty status, living arrangement, professed faith, church attendance, attitudes regarding abortion, highest grade completed, marriage plans, frequency of intercourse, and pregnancy status. Each of these independent factors is presented in relation to one or more of the following dependent aspects of contraceptive use: frequency of contraceptive use (trichotomized as "never used," "sometimes used," or "always used"), "ever used" versus "never used" contraception, "used" versus "did not use" contraception at last intercourse, contraceptive method most recently used, and source of contraception (for ever-users only). Additional sources of complexity and confusion in the presented results arise from the authors' presenting much of the results separately by race, presenting some results separately by age, and presenting some results in narrative form only (i.e., no numbers or tables to refer to). Unfortunately, the results presented for the 1976 and 1979 surveys suffer to an even greater degree from these presentation problems.

In addition to the above problems existing within each survey's presented results, there is also a general lack of inter-survey comparability, which further decreases the usefulness of the results. Of the numerous independent/dependent variable combinations, only 8 have

comparable results presented for the 1971 and 1976 surveys, and only 10 have comparable results presented for the 1976 and 1979 surveys.

An additional factor that further diminishes the usefulness of the Zelnik and Kantner surveys, and the numerous others which emphasize descriptive, demographic variables (i.e., age, race/ethnicity, religion, residence, socioeconomic status, and household composition) is the fact that the results are nearly always a restatement of common knowledge -- i.e., that more mature, white, Protestant, urban, wealthy adolescents who live with both parents are better contraceptors than immature, black, Catholic, rural, poor adolescents from single-parent homes. The exceptions to this generalization are, for the most part, those studies which simply fail to find evidence of any relationship between contraceptive use and demographic factors (e.g., Cvetkovich, Grote, Lieberman, & Miller, 1978; Rogel, Zuelke, Weiss, Peterson, & Shelton, 1980).

Knowledge variables. In previous studies which explore factors related to contraceptive use, the second major category of variables which has traditionally been investigated is that of knowledge. An enormous number of studies have addressed the relationship between contraceptive use and knowledge regarding sex, birth control, pregnancy, and/or abortion. In addition to the Zelnik and Kantner studies previously described, relevant studies include Diamond, Steinhoff, Palmore, and Smith

(1973); Cvetkovich, Grote, Bjarseth, and Sarkissian (1975); Kane and Lachenbruch (1975); Shah, Zelnik, and Kantner (1975); Reichelt and Werley (1976); and Kastner (1980). Not surprisingly, all of these studies except one (Cvetkovich et al., 1975) find a positive relationship between knowledge and contraceptive use.

Attitudinal variables. Attitudes toward sex, birth control, pregnancy, and abortion comprise the third category of previously investigated variables. In addition to Kantner and Zelnik (1973), Kastner (1980) and Rogel et al. (1980) are among the relevant studies. As with demographic and knowledge variables, these investigations generally yield a predictable result: There is a positive relationship between a favorable attitude toward contraception and contraceptive use.

Personality variables. A related, and also much-studied, category of factors is that of personality variables. These variables vary widely in terms of their concreteness, ranging from various aspects of psychological maturity to the adolescent's perceived probability of reversing a pregnancy. The aspects of psychological maturity studied include tendencies toward indecision (e.g., Rogel, Zuelke, & Petersen, 1982); inability to delay gratification (e.g., Pannor, Evans, & Massarik, 1971; Cobliner, 1974); inability to think abstractly (e.g., Cobliner, 1974; Adelson, 1975); and unrealistic thinking, general lack of planning, and consequent risk taking (e.g., Cobliner, 1974).

Not surprisingly, results from these studies generally indicate that adolescents who are more psychologically mature tend to be better contraceptors.

Somewhat less amorphous intrapsychic variables which have been investigated include the dimension of internality/externality (e.g., Goldsmith, Gabrielson, Gabrielson, Matthews, & Potts, 1972; Cvetkovich et al., 1975; Rogel et al., 1982); personal ambitions, including vocational/educational goals and those pertaining to marriage and family plans (e.g., Goldsmith et al., 1972; Shah, Zelnik, & Kantner, 1975); and acceptance of one's own sexuality (e.g., Goldsmith et al., 1972; Needle, 1977). Generally, these studies report that adolescents who are more internally oriented, who have definite vocational/-educational goals and marriage and family plans which support these ambitions, and who accept their sexuality tend to be better contraceptors.

At the least ambiguously defined extreme are variables such as the adolescent's perceived costs and benefits of pregnancy (e.g., Rogel et al., 1982); perceived costs and benefits of contraception (e.g., Kastner, 1980; Rogel et al., 1980; Rogel et al., 1982); and perceived probability of pregnancy (Shah et al., 1975; Rogel et al., 1982). These variables have been found to relate to contraceptive use as one would expect: Contraceptive use is better for those adolescents who view pregnancy as costly, contraception as beneficial, and themselves to be at risk of becoming

pregnant.

Interpersonal variables. The fifth category of factors associated with contraceptive use might be labeled interpersonal variables. These variables involve aspects of the adolescent's relationship with her family, peers, and partner. Pertaining to the adolescent's mother, father, or close family, previous studies have investigated the effects of the adolescent's communication with these significant others (e.g., Kastner, 1980); the attitudes of her family members (e.g., Furstenberg, 1976; Kastner, 1980); and the adolescent's knowledge of the contraceptive experiences of her family members (e.g., Rogel et al., 1980; Rogel et al., 1982). Pertaining to the adolescent's peers, previous studies have investigated the effects of the degree to which relevant information is obtained from friends (e.g., Thornburg, 1972; Gebhard, 1977; Kallen, Stephenson, & Dougherty, 1983); the adolescent's level of concern about peers' opinions (e.g., Finkel & Finkel, 1975); and relevant experiences (i.e., contraceptive use, pregnancy, etc.) of peers (e.g., Spanier, 1977; Rogel et al., 1982). Finally, pertaining to the adolescent's sexual partner, previous studies have investigated the effects of communication with the partner and of the attitudes of the partner (e.g., Finkel & Finkel, 1975; Scales, 1977; Cvetkovich et al., 1978; Finkel & Finkel, 1978; Kastner, 1980; Rogel et al., 1982).

Studies investigating these interpersonal variables

generally find that increased communication with family members and partner, more positive attitudes of family members and partner toward contraception, and increased knowledge about the contraceptive experiences of family members are all related to better contraceptive use. Results pertaining to the other variables, especially those variables relating to peers, are much less clear.

Experiential variables. The sixth major category of previously investigated factors consists of variables which measure experiences related to contraceptive practice. These experiences include age at first menses (e.g., Hatcher, 1973; Rogel, Fleming, & Zuelke, 1981); age at first intercourse (e.g., Cvetkovich et al., 1978); length of time sexually active (e.g., Zelnik & Kantner, 1978b; Zabin, Kantner, & Zelnik, 1979); number of sexual partners (Reichelt, 1979; Mindick, 1978); frequency of intercourse (Reichelt, 1979; Luker, 1975); prior pregnancy scares (e.g., Evans, Selstad, & Welcher, 1976); and prior pregnancies and their outcomes. In general, those variables relating to previous experience have not been found to relate to current contraceptive use. However, adolescents who have been sexually active longer, who have only one current sexual partner, and who have intercourse more frequently tend to be better contraceptors.

Situational factors. The seventh and final category of factors previously found to be related to contraceptive use might be labeled situational factors -- in particular, the

availability and accessibility of contraception and contraceptive services (e.g., Shah et al., 1975). Not surprisingly, increased access to contraception is related to better contraceptive use. The effects of requiring parental permission in order to obtain contraception have also been investigated (e.g., Torres, 1978), and this aspect of decreased accessibility has also been found to be negatively related to contraceptive use.

Self-Reported Reasons for Contraceptive Nonuse

Although it may seem obvious in investigating factors associated with adolescent contraceptive use to ask the teenage women themselves what their reasons are for not using or using contraception, this strategy has been employed by only two of the studies reviewed. The first, the Zelnik and Kantner 1976 national survey previously described (Zelnik & Kantner, 1979), asked currently pregnant teenagers about their reasons for contraceptive nonuse at the most recent occasion. For the pregnant teens, those who were not trying to become pregnant were given a card listing various reasons for nonuse and asked to choose the one reason which applied to them. The reason that was endorsed most frequently (by 43% of the respondents) was "I didn't expect to have intercourse." Other reasons that were endorsed included "believed it was wrong or dangerous to use contraception" (13% endorsement) and "wanted to use something but couldn't under the circumstances" (10%

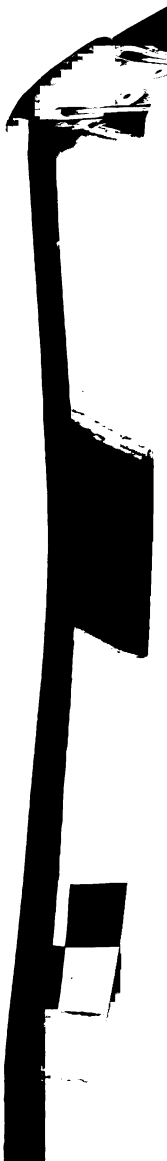
endorsement).

A different interviewing protocol was employed with the non-pregnant teens. Those who were not trying to become pregnant (or were already pregnant) at the time of their most recent nonuse were asked if they thought there was a good chance they might become pregnant. If they thought there was a good chance of becoming pregnant, they were given the card listing the reasons for nonuse. However, if they thought they wouldn't get pregnant, they were only asked an open-ended question of why they thought that was true. As with the group of pregnant teens, those teens who were given the card of reasons chose the reason "I didn't expect to have intercourse" most frequently (87% endorsement). However, the vast majority of non-pregnant teens (65%) thought they couldn't get pregnant, and most of these were unable to give any specific reason why they thought this was true.

The second study which asked teenagers about their reasons for contraceptive nonuse was a 1976 survey of over 1,200 teenagers who had never before been pregnant or sought professional birth-control services (Zabin & Clark, 1981). These teens were interviewed at their first visit to a family-planning clinic and asked why they didn't come to the clinic earlier. As in the Zelnik and Kantner study, respondents were given a card listing various reasons for nonuse. Here, however, teens were asked to endorse every reason "why it was hard for you to get birth control from a

clinic before" and also to indicate which of the endorsed reasons was the most important reason. The reason "I just didn't get around to it" was most frequently endorsed both as a contributing reason (38% endorsement) and as the most important reason (16% endorsement). The next four most frequently endorsed items, in descending order of endorsement frequency for both contributing and most important reason, were "afraid my family would find out if I came," "waiting for a closer relationship with my partner," "afraid to be examined," and "thought birth control was dangerous."

Both the Zelnik and Kantner study and the Zabin and Clark study have problems which greatly limit the usefulness of their investigations of self-reported reasons for contraceptive nonuse. First of all, it may be viewed as undesirable to present teens with a list of reasons rather than asking an open-ended question. Bias due to the research presentation is quite likely, particularly since it appears that these lists may have been quite lengthy. Zabin and Clark present the results for 18 reasons presented, plus they combine an unknown number of infrequently endorsed reasons into an "other" category. Although it appears that Zelnik and Kantner may have utilized a more manageable list of reasons, the reasons themselves are open to criticism. Some presented reasons are ambiguous (e.g., "wanted to use something but couldn't under the circumstances"), while others combine two quite different rationales (e.g.,



"believed it was wrong or dangerous to use contraception"). In addition, the usefulness of the Zelnik and Kantner study is adversely affected by their interview protocol whereby, for the majority of the teens surveyed, it was assumed that the reason for their contraceptive nonuse was the fact that they didn't think there was a "good chance" they might become pregnant.

Shortcomings of the Existing Research

Defining contraceptive use. The first major shortcoming of studies investigating factors related to contraceptive use is their lack of agreement on the definition of contraceptive use. There is, first of all, the dimension of contraceptive effectiveness to consider. The use of both medical contraceptive methods and drugstore methods (i.e., contraceptive foam and/or condoms) seems to be universally agreed upon as constituting contraceptive use, but judgments as to whether or not the use of less effective methods such as withdrawal and the rhythm method (not to mention use of ineffective methods such as douching) constitute contraceptive use is an area of considerable disagreement. Another definitional strategy consists of the adoption of a subjective definition of contraceptive use. Proponents of this perspective argue for the overwhelming importance of intent: i.e., if the adolescent thought she was using an effective means of contraception, this should constitute "effective contraceptive use."

The other dimension of the definition of contraceptive use to be considered is that of degree or regularity of use. The studies reviewed almost always categorize and contrast results upon this dimension. "Never contraceptors" and "always contraceptors" obviously present no classification problem, but the "sometimes users" may be, and in fact are, categorized in a wide variety of ways. Not only are there discrepancies among different groups of researchers, but this lack of standardization is also evident in the same research group across time. For example, Table 2 presents the numerous categories utilized by Zelnik and Kantner in presenting their various survey results. As previously stated, this lack of consensus makes inter-survey comparisons and generalizations virtually impossible.

Why investigate factors associated with contraceptive use? The other major shortcoming of this body of literature is the general lack of usefulness of the presented results for anything beyond simply describing the characteristics of the individual samples surveyed and their subsets. Presumably, research in this area is ultimately concerned with the causes of contraceptive use and nonuse, with an eye toward developing more effective intervention strategies. However, most of the existing research follows Zelnik and Kantner's pattern of simply presenting a series of cross-tabulations of contraceptive-use categories by variables presumably related to contraceptive use. Data analysis, even at the basic level of computing correlations,

TABLE 2

CONTRACEPTIVE USE CATEGORIES PRESENTED BY ZELNIK AND KANTNER

Kantner and Zelnik, 1973

Never Used
Sometimes Used
Always Used
Ever Used
Used at Last Intercourse

Zelnik and Kantner, 1977

Never Used
Sometimes Used
Always Used
Used at First Intercourse
Used at Last Intercourse
- First Used during Same Year as First Intercourse
- First Used during Later Year than First Intercourse

Zelnik and Kantner, 1978a

Never Used
Sometimes Used
Used at First Intercourse
Used Medical Method at First Intercourse
Used at First Intercourse but Not Always
Did Not Use at First Intercourse but Used at Some Time

Zelnik and Kantner, 1979

After a Period of Nonuse, Employed Contraception Regularly
Started to Use a Method, Failed to Use It at Least Once, and Then Resumed Use Without Further Relapse
Discontinued Use

Zelnik and Kantner, 1980

Never Used
Always Used
Used at First Intercourse but Not Always
Did Not Use at First Intercourse but Used at Some Time

is nonexistent for many of the study results presented.

With the exception of the variable of race (most researchers, if using a racially mixed sample, present results separately by race in order to see if the same patterns hold), few attempts have been made to unravel the relative effects that the multitude of variables studied may have on contraceptive use. Closely related to this shortcoming is the failure on the part of most researchers to present a unifying model or theory, however tentative, that relates the factors investigated to contraceptive behavior itself. The focus of many studies remains upon demographic variables, and ignores the necessary intermediate variables which might be hypothesized to be directly related to contraceptive behaviors. Such a focus makes the achievement of significant result useless in terms of addressing the problem of contraceptive nonuse among this population.

The two studies which constitute notable exceptions to this criticism were those presented by Kastner (1980) and Rogel et al (1980). Both studies performed multiple regression analyses relating a wide range of predictor variables to contraceptive use. (Specifically, the dependent variable was regularity of contraceptive use in the Kastner study and timing of first contraceptive use in the Rogel study.)

Relevant Theoretical Perspectives

In a 1979 paper on contraceptive risk-taking among unmarried college women, Kar, Marcus, Rykwalder, Serko and Tell reviewed the recent literature and presented a comprehensive overview of seven theoretical perspectives (which they labeled "hypotheses") which have sought to explain contraceptive risk-taking. Their overview will be summarized here.

The first hypothesis presented by Kar et al. was "The Empirical-Rational Hypothesis: Deficiency in Knowledge." This perspective maintains that contraceptive behaviors are rational and that a failure to contracept is due to a lack of knowledge regarding the personal likelihood of pregnancy, contraceptive use, and/or the costs of pregnancy.

The second hypothesis presented was "The Empirical-Rational Hypothesis: Deficiency in Supply." As in the first perspective, contraceptive behaviors are viewed as rational, and here the failure to contracept is viewed as resulting from a lack of access to contraceptive services.

The third hypothesis presented by Kar et al. was "The Psychodynamic or Intrapsychic Hypothesis." According to this hypothesis, contraceptive risk-taking occurs due to intrapsychic conflict, unconscious motives, and guilt.

The fourth hypothesis presented was "The Normative Control Hypothesis." This is basically a traditional sociological perspective whereby contraceptive behaviors are

viewed as being controlled by the norms and values of the society rather than intra-individual factors.

The fifth hypothesis presented by Kar et al. was "The Social Support and Personal Influence Hypothesis." According to this hypothesis, contraceptive behaviors are controlled by significant others -- family, peers, partner(s), and authority figures.

The sixth hypothesis presented was "The Situational Influence Hypothesis." This perspective asserts that transient situational factors result in contraceptive risk-taking, factors which may make prior planning impossible or render the young woman unable to effectively use contraception.

The seventh hypothesis presented by Kar et al. was "The Attitude-Behavior Consistency Hypothesis." This perspective is exemplified by Fishbein and Ajzen's well-known theory of reasoned action. Fishbein (1972) presents the application of this theory to contraceptive behavior. According to this theory, contraceptive behavior is a function of one's intention, which, in turn, is a function of one's attitude toward the behavior and one's beliefs about the norms surrounding the behavior. As Kar et al. point out, the major strength of this perspective is that it is multivariate, which certainly makes intuitive sense given the complexity of contraceptive behavior.

Kar et al. also included Luker's "Decision-Making Perspective" (Luker, 1975) as an example of an

"Attitude-Behavior Consistency Hypothesis," but discounted this perspective due to its basis on only one study. Luker's perspective encompasses the variables which are viewed as relevant under each of the seven presented hypotheses and organizes them in a framework of costs and benefits related to both contraceptive use and unintended pregnancy. As in the first two hypotheses, Luker maintains that contraceptive risk-taking is a rational decision for the individual involved. Lack of knowledge, lack of access, personality characteristics, societal norms, attitudes of significant others, and a variety of situational factors may all affect the cost/benefit equation as the individual conducts a process of internal tacit bargaining. Luker also places an emphasis on the dimension of time, maintaining that the various components of this decision-making process are weighted in importance according to their immediacy to the time at which the decision is made.

Luker's decision-making perspective seems valuable to the investigation of contraceptive risk-taking among female adolescents for a number of reasons. Most obviously, a multivariate approach seems to be necessary given the complexity of contraceptive behavior and considering the "infancy" of research efforts in this area. As previously stated, research in this area is presumably concerned with acquiring information that will aid in the development of more effective intervention strategies, and it is here that Luker's perspective may prove to be particularly valuable.

Luker maintains that contraceptive risk-takers need to be made aware of the elements of their cost-benefit analyses in order to effect any change in their risk-taking behavior. This suggests one way in which an intervention strategy might operate -- i.e., to help make the internal decision-making process explicit to the individual employing it. In addition, a perspective that organizes the multitude of variables associated with contraceptive risk-taking into costs and benfits also suggests the means by which an intervention can affect the balance in favor of more consistent contraceptive use.

Lastly, Luker identifies a number of decision junctures. In the results of her study of abortion seekers, she observes some common patterns in negotiating these junctures. Presumably, the same type of analysis could be made of adolescent contraceptive risk-taking, identifying common patterns existing among this age group. Such an analysis would be immensely useful in developing effective intervention strategies aimed at groups of adolescents who share a particular decision path.

In conclusion, of the seven theoretical perspectives which have been previously employed to explain contraceptive risk-taking, "The Attitude-Behavior Consistency Hypothesis," and more specifically the version of this hypothesis presented by Luker in her Decision-Making Perspective, appears to hold the most promise for an investigation of contraceptive risk-taking among female adolescents. As

described above, Luker's perspective is comprehensive in that it encompasses variables judged to be relevant under each of the seven theoretical perspectives and is therefore particularly suited for a multivariate research approach.

The Present Study

The present study was an investigation of contraceptive risk-taking among female adolescents. The theoretical perspective adopted was Luker's Decision-Making Pespective, with its assumption that contraceptive use is a rational decision from the perspective of the individual inolved. Those factors which have been previously found to be related to contraceptive use are analyzed in terms of costs and benefits related to both contraceptive use and unintended pregnancy. A multivariate approach was employed, which is obviously more valuable than the typical lack of data analysis of research in this field. In addition to investigating those factors previously found to be related to contraceptive use, the present study also investigated self-reported reasons for contraceptive non-use. This addition also constitutes an improvement over most research efforts in this area. Luker's client-centered perspective would naturally affirm the importance of assessing what young women themselves perceive as barriers to contraceptive use.

Specifically, the present study had two distinct, yet

complementary, goals. The first of these was to assess the importance of a wide range of variables derived from the literature which have previously been found to be associated with contraceptive risk-taking among female adolescents. Variables representing each of the seven categories detailed in Chapter 1 -- demographic, knowledge, attitudinal, personality, interpersonal, experiential, and situational -- were investigated. Demographic variables which were investigated included age, race, socioeconomic status, and religion. Knowledge variables included cost, risk of pregnancy, and side effects associated with each contraceptive method. Attitudinal variables included attitudes toward pregnancy, birth control, mother, and partner. Personality variables included internality/externality, vocational/educational goals, marriage and family plans, and the perceived probability of pregnancy. Interpersonal variables which were investigated in the present study included the contraceptive and pregnancy-related experiences of both family and friends and how well the adolescent gets along with family members. Experiential factors included age at first intercourse, frequency of intercourse, and number of partners, and situational factors included the age at which each contraceptive method could be obtained without parental permission.

In analyzing the relationship of these variables to contraceptive use, an emphasis was placed on those variables

which are amenable to change. Therefore, although demographic, interpersonal, and experiential information was obtained for descriptive purposes, the knowledge, attitudinal, and personality variables were of primary importance. The rationale for this emphasis, as previously stated, was that the research efforts in this field are presumably concerned with the causes of contraceptive use and nonuse in order to design more effective intervention strategies.

The second goal of this study was to survey the subjects about their wants and needs regarding contraceptive information and services. The following open-ended interview questions were used to accomplish this goal:

1. What are some of the reasons why a young woman your age might not use birth control?

2. Have any of these reasons ever been true for you? Which ones? When?

3. What types of things would make it easier for a young woman your age to use birth control?

The present study utilized interviews of female adolescents to accomplish these two goals. Individual interviews were thought to allow subjects to answer questions about personal and sensitive areas candidly. Although an anonymous questionnaire administration might have been superior in this regard, it was anticipated that the reading abilities and attention span of this age group would make successful completion of a lengthy questionnaire unlikely.

CHAPTER 2

METHOD

The present study employed interviews with female adolescents. Young women were targeted as there is widespread agreement that teenage women rather than men bear the responsibility for contraceptive use in this society today. Also, the perceived costs and benefits of an unplanned pregnancy directly impact young women, while the impact on their partners is a function of many situational variables. As in the vast majority of the previous research in this field, adolescence was defined as ages 13 to 17. The rationale for this age range is typically that few young women under the age of 13 are sexually active and that at the age of 18 most young women experience a significant change in their living situation and lose many aspects of their "minor" status.

Setting

Subjects for this study were obtained from participants at Teen Rap sessions conducted by the Ingham County Department of Public Health through its Family Planning and

Prenatal Clinic. The Ingham County Family Planning and Prenatal Clinic is located in a medical office building in Lansing, Michigan. The clinic staff consists of the clinic coordinator, eight nurses, a social worker, and clerical assistance. Physician coverage is provided by a local hospital's Family Practice residency program. The clinic provides a full range of contraceptive and prenatal services including educational services, counseling, and distribution of both prescription and non-prescription contraceptives. In addition, the clinic also provides pregnancy testing, infertility work-ups, and general gynecological services.

Clinic clients pay for services on a sliding scale, based on ability to pay. The Family Planning program served approxiately 5,000 clients in 1982, about 25% of whom were aged 17 or younger. The Prenatal Program served approximately 400 clients in 1982, about 27% of whom were aged 19 or younger. In 1982, there were approximately 14,000 client visits; about one-quarter of these were by adolescents.

Teen Rap sessions are educational meetings conducted by a clinic staff member, usually a nurse or social worker. A Teen Rap session lasts approximately one and one-half hours, during which time information is presented for each method of birth control. Clinic procedures, including pelvic exams and pregnancy testing, are also explained. In addition, breast self-examination is demonstrated. The format of the Teen Rap session is informal, with participants encouraged

to share information and ask questions. Adolescents attend a Teen Rap session on a walk-in basis. Although parents and partners are also welcome to attend, the participants tend to be females aged 17 and younger. Teen Rap sessions were viewed as optimal occasions for subject recruitment because teens are required to attend a Teen Rap session as a prerequisite to obtaining contraceptive services from the clinic. The typical Teen Rap participant is therefore a sexually active female adolescent who is not yet using a medically obtained method of contraception.

Subjects

Obtained Sample

Thirty-six female adolescents were interviewed from November 1983 to June 1984. The obtained sample represents 19% of the number of Teen Rap participants attending sessions where subject recruitment took place.

The young women who were interviewed ranged from 13 to 18 years of age. Three subjects were 13 years old, four were 14 years old, six were 15 years old, ten were 16 years old, and eleven were 17 years old. Although the subject-recruitment instructions specified volunteers between the ages of 13 and 17, two 18-year-olds were mistakenly interviewed. These subjects were dropped from the analyses. The final sample size was therefore 34 subjects with a mean age of 15.6 years.

According to the interviewers' judgments (as this question was not directly asked of the subjects), 23 of the 34 subjects used in the analyses were white (68%), and the remaining 11 (32%) were black.

Recruitment Procedures

Voluntary participants for this study were recruited at the conclusion of each Teen Rap session. Either the author or one of the interviewers addressed those present at the Teen Rap session and explained that she was looking for young women who would be willing to take part in a study designed to find out what teens think about sex and contraception. She also assured prospective participants that, if they chose to participate in the study, the information revealed would be completely confidential. It was also stated that their decision to participate or not participate in this study would in no way affect their obtaining clinic services. As an incentive to participate, the prospective participants were also informed that they would be paid $5 if they participated in the study. Those teens who volunteered then either signed up for an interview time or were given a Contact Card containing information on how they could call an interviewer in order to set up an appointment. Appendix A contains the detailed subject recruitment instructions and Appendix B contains examples of the Appointment Cards and Contact Cards which were used.

Interviewer Training and Supervision

Interviewers for the final study were trained in the Fall of 1983 (three interviewers), Winter of 1984 (two additional interviewers), and Spring of 1984 (two additional interviewers). Interviewers met with the author twice per week for the first four weeks and once per week thereafter. Appendix C contains an outline of the typical training schedule. In addition to reading the Literature Review and Research Proposal for the current study, the interviewers were also assigned two chapters about interviewing techniques and a number of articles about previous studies (particularly the Michael Reese study). These readings had a noticeably positive effect upon their interest in, and enthusiasm toward, the current study.

The interviewers were given feedback on their interviewing skills during in-class roleplays of interview sessions, based upon the tape recordings of practice interviews and based upon the tape recordings of their actual interviews. The in-class feedback was provided not only by the author, but also by the student's fellow interviewers. Feedback during the in-class roleplays was designed to be both balanced and behavioral. The feedback model used was for the student to receive one "positive" and one "negative" piece of feedback from each observer, and for the feedback to be stated in the form, "When you said/did _____, the effect on the youth was _____." For the

negative piece of feedback, alternatives were also provided by the observer, where possible. The feedback based upon the tape recordings of both the practice and actual interviews tended to be more general in nature, although it was often exemplified by a transcription from a specific tape. Interviewer objectivity and the need for standardization across all interviewers was particularly emphasized.

Inter-Interviewer Reliability

As previously mentioned, each of the interviews was tape recorded to allow the computation of inter-interviewer reliability. The tape recordings were used to independently complete the Interview Schedule. Poor tape quality and logistical constraints (i.e., the need to assign each case to an interviewer other than the original interviewer) resulted in the completion of a non-random subset of 20 out of the original 34 cases. For many of these cases, poor tape quality resulted in the inability to code some of the interview questions. Percent exact agreement was calculated using only those questions that were coded at both the original interview and the inter-interviewer coding. The mean percent exact agreement averaged across the 20 cases was 93%. Out of the 149 interview codes, over half (69) had 100% exact agreement. Only 15 of the codes had a mean percent exact agreement below 80%. Five of these were based on a small number of cases (seven or fewer). Of the remaining

ten codes, the lowest percent exact agreement was 65%, with the majority falling between 70 and 80 percent.

Measures

As previously stated, this study attempted to investigate a wide range of those variables which have been reported and/or theorized to be related to contraceptive use among female adolescents. This section summarizes the measurement development process for each instrument used.

Interview Schedule

Both the content and the format of the Interview Schedule (see Appendix D) were based upon an interview form developed for use in a similar study conducted by researchers at Michael Reese Hospital in Chicago (Rogel et al., 1980). The original instrument was modified based upon suggestions from clinic staff, the experiences of interviewers during two pilot studies (to be described in a later section), and suggestions from pilot subjects.

Changes to the measure used in the Michael Reese study included a major reformatting (in order to present questions in a more topically logical order), deletion of most opinion questions (as these were to be included in the Attitude Questionnaire and Perceptions Questionnaire), deletion of many detailed questions about the subject's pregnancy and childbirth experiences (unlike the Chicago subjects, few of the current subjects had ever experienced a pregnancy),

adding a section of questions about their sisters' pregnancy and birth-control experiences (where the Michael Reese measure asked only about the experiences of their close friend), making a number of questions open-ended rather than fixed-choice (where it appeared that the choices presented were leading and/or confusing), and wording changes made for the sake of increased clarity. As in the Michael Reese study, a two-month frame of reference was used for questions concerning current sexual activity (i.e., frequency of intercourse, contraceptive use, and number of sexual partners).

Health Locus of Control

The Health Locus of Control measure (developed by Wallston, Wallston, Kaplan & Maides, 1976) contained in Appendix E was identical to the instrument used in the Michael Reese study. A total externality score was computed for each subject by reversing the coding of the internal items (questions 1, 2, 8, 10, and 11) and then summing the responses across the 11 questions. Thus, the possible total score ranges from a low of 11 (high internality) to a high of 44 (high externality). The reliability of this score, as measured by Cronbach's alpha, was .31.

Attitude Questionnaire

The Attitude Questionnaire (contained in Appendix F) was identical to the instrument developed for and used in the Michael Reese study. Twenty-one of the 25 questions were

rationally scaled. (The remaining 4 questions were excluded due to lack of variance or failure to rationally fall into one of the scales.) The resulting scales involved attitudes toward birth control, mother, partner, others, and pregnancy/motherhood. Table 3 presents the component items and the Kuder-Richardson Formula 20 reliability coefficient for each scale. Scale scores were computed by counting the number of times the positive response was indicated for each of the component questions.

In addition to the five attitudinal scales, two items from the Attitude Questionnaire were used as a measure of impulsivity. These items were "I would prefer that sex just happen/I know in advance," and "If we didn't have birth control with us, I would want to wait/not want to wait to have sex." The impulsivity scale was computed by counting the number of times the impulsive response was indicated.

Perceptions Questionnaire

The Perceptions Questionnaire (see Appendix C) was developed by the author with the assistance of the pilot interviewers. Initially, a review was made of knowledge questionnaires used in previous research studies. Every existing measure was found to be seriously problematic, most by the researcher's own admission. In spite of this failure to find a suitable instrument, it was felt that assessing subjects' knowledge of a number of facts related to contraceptive use was important enough to warrant an attempt

TABLE 3

COMPONENT ITEMS FOR ATTITUDE QUESTIONNAIRE SCALES

Scale 1: Birth Control (KR-20 = .03)

I have a lot of/not very many choices when it comes to birth control.

I think that none/at least one of the methods of birth control would be okay for me.

I feel like it's pretty likely/not so likely that I'll get pregnant if I don't use birth control.

It would be a real hassle/okay using birth control if I wasn't having sex very often.

For me "taking a chance" would be better/worse than having to see a doctor to get birth control.

Scale 2: Mother (KR-20 = .16)

The idea of talking to my mother about birth control seems pretty hard/pretty easy .

I think it would be quite helpful/not very helpful to talk with my mother about birth control.

If my mother knew I was using birth control, she would give me a hard time/understand .

Scale 3: Partner (KR-20 = .55)

The idea of talking to my partner about what birth control method to use seems rather hard/rather easy .

I think/I don't think that if I used birth control my boyfriend might pressure me to have sex more often.

I would feel pretty comfortable/pretty uncomfortable asking my boyfriend to use a rubber.

TABLE 3 -- continued

Scale 4: Others (KR-20 = .09)

I feel pretty comfortable/pretty uncomfortable with the idea of talking to friends about birth control.

I worry/don't worry that if people know I'm using birth control they will think I "give it away."

I'm sure/not so sure I'm comfortable talking to anyone about birth control.

Scale 5: Pregnancy/Motherhood (KR-20 = .61)

I would feel okay/be pretty unhappy if I got pregnant in the near future.

If I became a mother right now, I think I'd have a much harder time/not such a hard time reaching my own goals for the future.

I imagine that if I had a baby now, I would have a harder time/an easier time getting boyfriends.

If I were to have a baby while I was still a teenager, I'd have a hard time/an easy time being a good mother.

It seems to me that if I were to have a baby as a teenager, people I know would pay more/pay less attention to me.

I bet I'd be proud/embarrassed if I were a pregnant teenager.

If I had a baby now, it would probably be just as easy/more difficult to do things with my friends.

to create a new measure. Specifically, it was thought to be important to assess subjects' knowledge of the risk of pregnancy with each contraceptive method, the age at which each method can be independently obtained, the cost of each method, and the side effects associated with each method. Similarly, it was thought to be important to assess access and side-effect facts for abortion. Upon further consideration, it was decided to assess each subject's personal subjective perception of each of these factors rather than simply assessing whether they know the "correct answer," as most knowledge questionnaires seek to do. This decision and the specific factors measured are due in large part to the Decision-Making Perspective adopted. It may be argued that what is relevant to an individual's contraceptive decisions is not whether or not she has the correct general knowledge about contraception, but rather how her knowledge (correct or incorrect) translates into personally relevant costs and benefits. It seems obvious that an individual would be discouraged from using a contraceptive method that she perceives as ineffective for her, inaccessible (due to needing parental permission or due to expense), or likely to cause her to experience unpleasant side effects.

Post-Interview Assessment

The Post-Interview Assessment (contained in Appendix H) was developed by the pilot interviewers. It is basically a

reduced version of a similar measure used in the Michael Reese study, with modifications based upon what the interviewers felt they were able to assess with some consistency.

Contraceptive Use

The present study was designed to measure the dependent variable -- contraceptive use -- as a continuous variable (i.e., the percentage of intercourse during the past two months for which contraception was used). However, results indicated that of the 21 subjects who were sexually active during the past two months, 12 always used birth control and 5 never used birth control. Therefore, only the remaining 4 subjects had contraceptive-use rates that fell between 0% and 100%. This problem, combined with the fact that the contraceptive use rate fails to reflect the effectiveness of the contraceptive method chosen, resulted in the ultimate dichotomization of subjects into two groups. The first group contains those 11 subjects who always used an effective method of birth control. (The specific methods used were condoms, foam and condoms, and the birth-control pill.) The second group contains the 4 subjects who used an effective method inconsistently, the 2 subjects who used an ineffective method (i.e., withdrawal), and the 5 subjects who did not use birth control during the past two months.

Interview Procedures

First Pilot Study

The first pilot consisted of administering an initial version of the Interview Schedule to adolescent clients at the Family Planning and Prenatal Clinic. Adolescents who had a scheduled appointment at the clinic were approached and asked if they would be willing to spend their waiting time talking with a Michigan State student who was planning a study about "how teenagers make decisions about birth control." The interviews were conducted in a private office at the clinic, and participants were not paid. This initial pilot provided the opportunity to try out both the Interview Schedule and the Consent Form, and obtain reactions and feedback from the participants. The interviews were conducted quite informally, with the participants encouraged to interrupt to ask questions and provide suggestions on how to improve the questionnaire. All of the participants' comments were recorded, as was the amount of time required to complete the Interview Schedule. This pilot was conducted by the author and a recently graduated psychology student assistant during May and June, 1982. A total of ten interviews were conducted. Every adolescent who was asked volunteered to be interviewed; the main recruitment problem for this first pilot was the large proportion of "no-shows" (i.e., teenagers who did not show up for their clinic appointments).

Second Pilot Study

Based upon their experience conducting the initial pilot, the author and her assistant revised the Consent Form, reformatted and made slight wording modifications in the Interview Schedule, and developed an interviewer-training plan. Two interviewers were trained in the Fall of 1982 and conducted interviews in May of 1983. These interviewers conducted five pilot interviews consisting of the Consent Form, the Interview Schedule, the Health Locus of Control, and the Attitude Questionnaire. The subjects for this second pilot study consisted of Teen Rap group participants recruited by the author in much the same manner as for the final study itself. As in the final study, subjects were recruited at the end of Teen Rap sessions, interviewed by appointment, and paid $5 for their participation.

The second pilot study provided the opportunity to try out the interviewer-training procedures and to develop standardized subject-recruitment procedures (presented in Appendix A) and standardized interviewer instructions (Appendix J). Slight wording modifications were again made in the Interview Schedule, based upon interviewers' feedback. As part of their course experience, the interviewers also assisted the author in the development of the Perceptions Questionnaire and the Post-Interview Assessment.

Final Interview Procedures

An interview of approximately 1 hour duration was individually conducted with each study participant. The interview took place either at the Family Planning Clinic in a private office set aside for this purpose, or at another mutually agreed upon location (usually either the interviewer's or the teen's residence). Interviewers were female undergraduate students at Michigan State University who participated for course credit in Psychology 490, Independent Study.

Upon the teen's arrival, the interviewer read the Consent Form (see Appendix I) aloud and asked the participant if she had any questions. After any questions were answered, the participant was given the Consent Form to read and sign. Due to teenagers' current legal right to obtain contraceptive information and services without parental permission or notification, the present study did not ask for parental consent.

The adolescent was paid $5 for her participation prior to the interview itself, told that she did not have to answer any questions she did not want to answer, and informed that the interview would take about 1 hour. The interviewer then asked her the questions contained on the Interview Schedule. Following this, the participant was asked to complete two paper-and-pencil measures: the Health Locus of Control, and the Attitude Questionnaire.

Finally, the interviewer asked the questions contained in the Perceptions Questionnaire. After the participant left, the interviewer completed the Post-Interview Assessment.

A somewhat more specific overview of the interviewing procedures is contained in the Interview Instructions followed by the interviewers. These instructions are contained in Appendix J. (See also Appendix K, Interview Materials Checklist.) Interviews were tape recorded in order to allow a computation of inter-interviewer reliability, and also to allow the author to review what transpired during the interview and present constructive feedback to the interviewer.

Confidentiality was assured through the use of a three-digit subject identification number. This number, and not the participant's name, was entered on the interview forms. The Consent Form, which contained the participant's name (but not her identification number), was not placed in the folder containing the completed interview forms. When a completed interview was returned to the author, the corresponding Consent Form was removed to a locked drawer in the author's residence, while the completed interview forms remained in an on-campus office.

CHAPTER 3

RESULTS

As previously described, the present study had two distinct goals: (a) to assess the relationship of a wide range of variables to contraceptive use; and (b) to investigate self-reported reasons for contraceptive non-use.

Goal 1: Investigating Factors Related to Contraceptive Use

Although a great number of variables were measured, only a select subset was used in this part of the investigation. An initial subset of the variables was chosen using the criterion previously described -- i.e., is the factor amenable to change? This initial subset was further reduced in number using a second criterion -- i.e., that of "sufficient variance." A very liberal, albeit arbitrary, definition of sufficient variance was used. In most cases, a minimum of four subjects at each of two levels of the variable was required to constitute sufficient variance.

The 10 variables which fulfilled these two criteria are presented in Table 4. Two of the Attitude Questionnaire scales -- the Birth Control Scale and the Others Scale --

TABLE 4

PREDICTOR VARIABLES WITH SUFFICIENT VARIANCE

1. Educational Goal (Interview Schedule, question #8)
2. Perceived Probability of Pregnancy if Contraception Not Used (Interview Schedule, question #98)
3. Perceived Probability of Terminating a Pregnancy (Interview Schedule, questions #101 and 107: i.e., has subject had an abortion and/or would she have an abortion?)
4. Externality Score (computed from Health Locus of Control)
5. Birth Control Scale (computed from Attitude Questionnaire*)
6. Partner Scale (computed from Attitude Questionnaire*)
7. Others Scale (computed from Attitude Questionnaire*)
8. Pregnancy/Motherhood Scale (computed from Attitude Questionnaire*)
9. Impulsivity (computed from Attitude Questionnaire**)
10. Perceived Effectiveness of Most Effective Contraception Method (Perceptions Questionnaire, questions #1-9)

*See Table 3 for the specific items comprising each scale.

**See p. 41 for the items comprising this scale.

were excluded from further consideration due to their low reliabilities (see Table 3). These variables were further reduced in number by excluding variables from highly intercorrelated pairs. The correlation matrix upon which these decisions were based is presented in Table 5. Perceived probability of pregnancy was found to be highly correlated with perceived effectiveness of the most effective contraceptive method (r = .59; p = .002); therefore, only the first of these variables was retained for further analysis. As shown in Table 5, the three remaining scales from the Attitude Questionnaire were also highly intercorrelated, with correlations ranging from .51 to .73. The decision was made to retain only one of these scales (the Pregnancy/Motherhood Scale) for further analysis. This scale had the highest reliability (.61) and was most highly correlated with each of the other scales.

The five remaining variables were used to predict contraceptive use. As previously described, contraceptive use was dichotomized due to the nature of the data, with subjects classified as either always-users of effective methods versus all other sexually active subjects. A two-group discriminant analysis was performed using the five predictor variables (Educational Goal, Perceived Probability of Pregnancy, Perceived Probability of Terminating a Pregnancy, Externality, and the Pregnancy/Motherhood Scale Score) to discriminate between subjects in the two contraceptive groups. The predictors failed to significantly

TABLE 5

CORRELATIONS BETWEEN PREDICTOR VARIABLES

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1)	Educational Goal							
(2)	Probability of Pregnancy	.23						
(3)	Probability of Abortion	.39*	.12					
(4)	Externality	-.03	-.01	.04				
(5)	Partner Scale	.20	-.11	.17	-.36			
(6)	Pregnancy/Motherhood Scale	.02	.02	.29	-.55*	.73*		
(7)	Impulsivity	.16	-.05	.04	-.33	.61*	.51*	
(8)	Maximum Contraceptive Effectiveness	.19	.59*	.00	-.20	.15	.28	.28

*Correlation significant at $p < .05$

discriminate between the two groups by the Wilks Lambda Criterion (Wilks Lambda = .61, df = 5, p = .21).

Goal 2: Investigating Self-Reported Reasons for Contraceptive Non-Use

Three open-ended questions on the Interview Schedule addressed this goal. The first of these was, "What are some reasons why a young woman your age might not use birth control?" Only one subject could not come up with a response to this question. Fourteen subjects mentioned one reason in response to this question, 12 subjects mentioned two reasons, 5 mentioned three reasons, and 2 mentioned four reasons. The responses to this question fell into 11 themes. These categories, and the number and percentage of subjects mentioning a reason that fell into each category, are presented in Table 6.

The second open-ended question that comprised the needs-assessment portion of the Interview Schedule was, "Have any of these reasons ever been true for you?" -- referring to the reasons mentioned in response to the first question. The majority of subjects (28, or 82%) reported that none of the reasons they had mentioned had ever been true for them. Only four of the themes mentioned in the first question were mentioned in response to this second question -- "lack of prior planning" and "embarrassed that someone would know" were each mentioned by two subjects, while "think they won't get pregnant" and "afraid their parents would find out" were mentioned by one subject

TABLE 6

FREQUENCY OF REASONS FOR NON-USE OF CONTRACEPTION

Themes of the Reasons Mentioned	Number of Subjects Mentioning	Percentage of Subjects Mentioning
A young woman might not use contraception due to:		
Lack of prior planning	10	29
Believing she won't get pregnant	9	27
Wanting to get pregnant	8	24
Fear that her parents would find out	5	15
Fear of contraceptive side effects	5	15
Lack of information/knowledge about contraceptive use	5	15
Negative personality characteristics i.e., lazy, stupid, irresponsible)	5	15
Problems with her boyfriend	5	15
Lack of access to contraception (including lack of money)	4	12
Embarrassment that someone would know	3	9
Believing that contraception is ineffective	2	6

apiece.

The third open-ended question involving needs assessment was, "What types of things would make it easier for a young woman your age to use birth control?" Six subjects could not come up with a response to this question. The majority of the subjects (21, or 62%) had one response to this question, five subjects had two responses, and two subjects had three responses. The responses to this question fell into six themes. These categories, and the number and percentage of subjects mentioning something that fell into each of the categories, are presented in Table 7.

TABLE 7

FREQUENCY OF WAYS TO INCREASE EASE OF CONTRACEPTIVE USE

Themes of Ways Mentioned	Number of Subjects Mentioning	Percentage of Subjects Mentioning
It would be easier for a young woman to use contraception if:		
She had more information or education regarding contraception	13	38
There was easier access to contraception	8	24
She had better communication with her parents or her parents were somehow "better"	7	21
There was less embarrassment involved in contraceptive use	5	15
She knew her parents wouldn't find out about her contraceptive use	2	6
She received encouragement from her boyfriend	2	6

CHAPTER 4

DISCUSSION

Two distinct goals were initially identified for this study. The results will be discussed as they relate to each of these goals. In addition, the difficulties encountered in conducting this research effort will be discussed in terms of their implications for future research. Finally, recommendations for future research will be made.

Goal 1: Investigating Factors Related To Contraceptive Use

This study failed to find a multivariate relationship between the predictor variables and contraceptive use. The most obvious constraint on this analysis was the problem of small sample size. Six months of subject-recruitment efforts resulted in an obtained sample of 36 subjects. The number of subjects eligible for inclusion in this analysis was further reduced by mistakenly interviewing two 18-year-olds and by the unanticipated finding that over one-third of the obtained subjects (i.e., 13 of the remaining 34) had not been sexually active during the past two months.

As previously described, research in this area rarely

expands beyond the presentation of descriptive results. Kastner (1980) represented a notable exception with a multivariate approach which involved predicting contraceptive frequency from a set of 21 scales. The present study fails to be even somewhat comparable to the Kastner study, however, due to the disparities in measurement of the dependent variable. Kastner utilized a one-time scale where subjects characterized the regularity with which they used contraceptives during intercourse as "never," "rarely," "sometimes," "usually," or "always." As described in the "Contraceptive Use" section of Chapter Two, the responses obtained in the present study resulted in a dichotomization of subjects in terms of the dependent variable of contraceptive use, with one group composed of those subjects who always used an effective method of contraception and the other group composed of all other sexually active subjects. Thus, unlike the Kastner study, the present study refers to a specific time frame (i.e., past two months) and incorporates consideration of the effectiveness of the contraceptive method used in defining the dependent variable of contraceptive use.

Goal 2: Investigating Self-Reported Reasons for Contraceptive Non-Use

This portion of the survey results indicates that the subjects as a group are aware of many of the reasons frequently cited as contributing to contraceptive non-use.

The theme that was mentioned most frequently -- "lack of prior planning" -- is comparable to the reason endorsed most frequently by the pregnant respondents in one of the two previous studies which asked for teens' self-reported reasons for contraceptive non-use (i.e., the reason "I didn't expect to have intercourse" presented in Zelnik & Kanter, 1979) and is also comparable to the most frequently endorsed reason in the other study (i.e., the reason "I just didn't get around to it" presented in Zabin & Clark, 1981). The theme that was mentioned second most frequently in the present study -- "believing she won't get pregnant" -- is consistent with the fact that the majority of the non-pregnant respondents in the Zelnik and Kantner study did not think that there was a good chance that they might become pregnant.

Unlike the two previous studies, both of which asked for the respondent's personal reasons for contraceptive non-use and clinic non-use, the present study initially asked for reasons why "a young woman your age" might not use contraception. Due to this more general focus, the third most frequently mentioned theme for the present study was "wanting to get pregnant," a reason that was not presented in the two previous studies.

When respondents in the present study were asked if any of their previously-mentioned reasons for contraceptive non-use had ever been true for them, the vast majority (82 percent) reported that none of the reasons had ever been

true for them. Given the fact that this was not a group of perfect contraceptors, their response to this question probably reflects the inherent danger of asking an open-ended question that can be simply answered with a socially desirable "no" response. In this regard, the two previous studies, with their method of asking respondents to endorse reasons presented on a list, appear to be far superior in obtaining a useful response.

The final question in this needs-assessment portion of the present study -- "What types of things would make it easier for a young woman your age to use birth control?" -- also elicited themes which are frequently cited as contributing to contraceptive non-use. It is encouraging to note that the two most frequently mentioned themes involve increasing knowledge about contraception and access to contraception, both of which are within the scope of an intervention effort.

Difficulties Encountered in Investigating Contraceptive Risk-Taking Among Female Adolescents

Perhaps the most "significant" result of the present study is the author's new appreciation for the difficulties inherent in conducting a research effort in this area of interest.

Obtaining subjects. Future research efforts would be wise to carefully consider the cost of obtaining a sufficient number of adolescent volunteers. In designing

research relating to contraceptive use, sufficient allowance must also be made for the inherent cost of obtaining "unusable" (i.e., not sexually active) subjects. These costs should be measured not just in terms of time and effort, but also with full consideration of the expense in terms of generalizability which results from a low volunteer rate. Sampling from the pool of potential volunteers and then aggressively soliciting the selected subjects would be a highly superior strategy for obtaining subjects.

Defining contraceptive use. Despite a thorough a priori consideration of the problems involved in arriving at a useful and valid definition of contraceptive use, the author was forced to discard the clean, rationally based continuous variable which she had intended to use as the measure of contraceptive use (i.e., the percentage of intercourse during the past two months for which contraception was used) in favor of the dichotomous variable dictated by the data. This experience provided insight into the problems that may underlie the confusing array of differing definitions presented by previous researchers. An overall attempt to somehow standardize what constitutes contraceptive use (preferably one which combines regularity of use and effectiveness of the method used) is sorely needed to allow this research area to progress beyond a collection of unrelated studies.

Relating factors to contraceptive use. It is in this effort, in particular, that the author has gained an

appreciation for the difficulties involved. Despite an a priori affirmation that the value of research in this area lies in its usefulness in developing intervention strategies, and despite an adoption of a theoretical perspective which was consistent with this viewpoint, the author did not successfully avoid the temptation to measure a great number of variables (especially demographic) which were of little or no importance in terms of the theoretical perspective adopted. This unwise focus on comprehensiveness rather than utility resulted in a survey which required a trained interviewer and an hour of the respondent's time, thus making it necessary for volunteers to return for an interview. This procedure was undoubtedly a major contribution to the difficulty in obtaining a sufficient number or percentage of volunteer subjects.

In addition, after following the planned multivariate predictive approach to its statistically "unsuccessful" conclusion, the author can more fully understand the attractiveness of presenting purely descriptive data rather than evaluating one's variables based on their predictive abilities. The fact that a descriptive presentation is the norm is indicative of the "infancy" of this research area. It is sincerely hoped that more sophisticated research efforts will quickly flourish, considering the great potential for alleviating one of our society's major social problems -- the problem of teenage pregnancy -- that insights into teenage contraceptive use can provide.

Recommendations for Future Research

In addition to the practical suggestions presented above, which arose from the difficulties encountered in this research effort, future research also needs to address the major shortcomings in the existing research which were identified in Chapter 1. First, a standard method of defining contraceptive use should be developed in order to facilitate comparisons across studies. Secondly, researchers should adopt a multivariate approach in investigating factors related to contraceptive use and develop theoretical frameworks which reflect this added complexity. As previously discussed, Luker's decision-making perspective appears to hold much promise in focusing future research efforts on the collection of information that can aid in the development of more effective intervention strategies. Finally, future research efforts should not neglect the valuable information that can be obtained by directly asking young women what their reasons are for contraceptive non-use.

REFERENCES

REFERENCES

Adelson, E. (1975). Sexuality and psychoanalysis. New York: Brunner-Mazel.

Alan Guttmacher Institute (1981). Teenage pregnancy: The problem that hasn't gone away. New York: The Alan Guttmacher Institute.

Athanasiou, R. (1973). Psychiatric sequelae to term birth and induced early and late abortion: A longitudinal study. Family Planning Perspectives, 5(4), 227-231.

Baldwin, W. H. (1976). Adolescent pregnancy and childbearing -- growing concerns for Americans. Population Bulletin, 31(2), 3-36.

Bumpass, L. L., Rindfuss, F. F., & Janusik, R. B. (1978). Age and marital status at first birth and the pace of subsequent fertility. Demography, 15(1), 75-86.

Chilman, C. S. (1979). Teenage pregnancy: A research review. Social Work, 24(6), 492-498.

Cobliner, W. G. (1974). Pregnancy in the single adolescent girl: The role of cognitive functions. Journal of Youth and Adolescence, 3, 17-29.

Cvetkovich, G., Grote, B., Bjarseth, A., & Sarkissian, J. (1975). On the psychology of adolescents' use of contraceptives. The Journal of Sex Research, 11(3), 256-270.

Cvetkovich, G., Grote, B., Lieberman, E. J., & Miller, W. B. (1978). Sex role development and teenage fertility-related behavior. Adolescence, 13, 231-236.

Diamond, M., Steinhoff, P. G., Palmore, J. A., & Smith, R. G. (1973). Sexuality, birth control, and abortion: A decision-making sequence. Journal of Biosocial Science, 5, 347-361.

Evans, J. R., Selstad, G., & Welcher, W. H. (1976). Teenagers: Fertility control behavior and attitudes before and after abortion, childbearing, or negative pregnancy test. Family Planning Perspectives, 8(4), 192-200.

Family Planning Perspectives (1976). Unintended births place teenage mothers at high risk of school dropout, unemployment, dependency. Family Planning Perspectives, 8(4), 176-177.

Finkel, M. L., & Finkel, D. J. (1975). Sexual and contraceptive knowledge, attitudes, and behavior of male adolescents. Family Planning Perspectives, 7(6), 256-260.

Fishbein, M. (1972). Towards understanding of family planning behaviors. Journal of Applied Social Psychology, 2(3), 214-227.

Furstenberg, F. F., Jr. (1976). The social consequences of teenage parenthood. Family Planning Perspectives, 8(4), 148-164.

Gebhard, P. H. (1977). The acquisition of basic sex information. The Journal of Sex Research, 13(3), 148-169.

George Washington University Medical Center, Department of Medical and Public Affairs (1976). Adolescent fertility -- Risks and consequences. Population Bulletin, Series J, 10, 157-175.

Goldsmith, S., Gabrielson, M. O., Gabrielson, I., Matthews, V., & Potts, L. (1972). Teenagers, sex, and contraception. Family Planning Perspectives, 4(1), 32-38.

Hatcher, S. L. M. (1973). The adolescent experience of pregnancy and abortion: A developmental analysis. Journal of Youth and Adolescence, 2, 53-102.

Kallen, D. J., Stephenson, J. J., & Dougherty, A. (1983). The need to know: Recalled adolescent sources of sexual and contraceptive information and sexual behavior. The Journal of Sex Research, 19(2), 137-159.

Kane, T. J., & Lachenbruch, P. A. (1973). Adolescent pregnancy: A study of aborters and non-aborters. American Journal of Orthopsychiatry, 43(5), 796-803.

Kantner, J. F., & Zelnik, M. (1973). Contraception and pregnancy: Experience of young unmarried women in the United States. Family Planning Perspectives, 5(1), 21-35.

Kar, S. B., Marcus, E., Rykwalder, A., Serko, L., & Tell, E. (1979). Pregnancy risk-taking among young unmarried women: An analysis of its determinants and prevention. Patient Counseling and Health Education, 1(4), 151-163.

Kastner, L. S. (1980, September). Adolescent pregnancy prevention: Ecological approaches and implications. Paper presented at the meeting of the American Psychological Association, Montreal.

Kinsey, A. C., Pomeroy, W. B., Martin, C. E., & Gebhard, P. H. (1953). Sexual behavior in the human female. Philadelphia: Saunders.

Kreutner, A. K. K., & Hollingsworth, D. R. (Eds.). (1978). Adolescent obstetrics and gynecology. Chicago: Year Book Medical.

Luker, K. (1975). Taking chances: Abortion and the decision not to contracept. Berkeley, CA: University of California Press.

McCarthy, J. A. (1978). Comparison of the probability of the dissolution of first and second marriages. Demography, 15(3), 345-359.

McCarthy, J., & Menken, J. (1979). Marriage, remarriage, marital disruption and age at first birth. Family Planning Perspectives, 11(1), 21-30.

Menken, J. (1972). The health and social consequences of teenage childbearing. Family Planning Perspectives, 4(3), 45-53.

Miller, P. Y., & Simon, W. (1974). Adolescent sexual behavior: Context and change. Social Problems, 22(1), 58-76.

Mindick, B., Oskamp, S., & Berger, D. E. (1978, August). Prediction of adolescent contraceptive practice. Paper presented at the meeting of the American Psychological Association, Toronto.

Moore, K. A., & Waite, L. J. (1977). Early childbearing and educational attainment. Family Planning Perspectives, 9(5), 220-225.

National Center for Health Statistics. (1984). Vital Statistics of the United States, 1980, Vol. 1: Natality. Hyattsville, MD: U. S. Government Printing Office.

Needle, R. H. (1977). Factors affecting contraceptive practices of high school and college-age students. The Journal of School Health, 6, 340-345.

Osofsky, H. J. (1968). The pregnant teenager. Springfield, IL: Charles C. Thomas.

Osofsky, J. D., Osofsky, H. J., & Rajan, R. (1973). Psychological effects of abortion: With emphasis upon immediate reactions and followup. In Osofsky, H. J., & Osofsky, J. D. (Eds.), The abortion experience: Psychological and medical impact. Hagerstown, MD: Harper and Row.

Pakter, J., Nelson, F., & Svigar, M. (1975). Legal abortion: A half-decade of experience. Family Planning Perspectives, 7(6), 248-255.

Pannor, R., Evans, B., & Massarik, F. (1971). The unmarried father: New approaches for helping unmarried parents. New York: Springer.

Perez-Reyes, M., & Falk, R. (1973). Follow-up after therapeutic abortion in early adolescence. Archives of General Psychiatry, 28(1), 120-126.

Reichelt, P. A. (1979). Coital and contraceptive behavior of female adolescents. Archives of Sexual Behavior, 8(2), 159-172.

Reichelt, P. A., & Werley, H. H. Sex knowledge of teenagers and the effect of an educational rap session. Journal of Research and Development in Education, 10(1), 13-22.

Rogel, M. J., Fleming, J. P., & Zuelke, M. E. (1981, August). Responses to menarche as indicators of sexual attitudes and behaviors. Paper presented at the annual meeting of the American Psychological Association, Los Angeles.

Rogel, M. J., Zuelke, M. E., & Petersen, A. C. Adolescent contraceptive behavior: Influence and implications. In I. R. Stuart & C. F. Wells (Eds.)., Pregnancy in Adolescence: Needs, Problems, and Management. New York: Reinhold.

Rogel, M. J., Zuelke, M. E., Weiss, C., Petersen, A. C., & Shelton, M. (1980, August). Female adolescents: Factors differentiating early-, middle-, late-, and never-conraceptors. Paper presented at the annual meeting of the American Psychological Association, Montreal.

Scales, P. (1977). Males and morals: Teenage contraceptive behavior and the double standard. Family Coordinator, 26(3), 211-222.

Shah, F., Zelnik, M., & Kantner, J. F. (1975). Unprotected intercourse among unwed teenagers. Family Planning Perspectives, 7(1), 39-44.

Spanier, G. B. (1977). Sources of sex information and pre-marital sexual behavior. The Journal of Sex Research, 13(2), 73-88.

Thornburg, H. D. (1972). A comparative study of sex information sources. The Journal of School Health, 42(2), 88-91.

Torres, A. (1978). Does your mother know? Family Planning Perspectives, 10(5), 280-282.

Trussell, T. J. (1976). Economic consequences of teenage childbearing. Family Planning Perspectives, 8(4), 184-190.

Wallston, B. S., Wallston, K. A., Kaplan, G. D., & Maides, S. A. (1976). Development and validation of the Health Locus of Control (HLC) Scale. Journal of Consulting and Clinical Psychology, 44(4), 580-585.

Zabin, L. S., & Clark, S. D. (1981). Why they delay: A study of teenage family planning clinic patients. Family Planning Perspectives, 13(5), 205-217.

Zabin, L. S., Kantner, J. F., & Zelnik, M. (1979). The risk of adolescent pregnancy in the first months of intercourse. Family Planning Perspectives, 11(4), 215-222.

Zelnik, M. (1979). Sex education and knowledge of pregnancy risk among U.S. teenage women. Family Planning Perspectives, 11(6), 355-357.

Zelnik, M., & Kantner, J. F. (1977). Sexual and contraceptive experience of young unmarried women in the United States: 1976 and 1971. Family Planning Perspectives, 9(2), 55-71.

Zelnik, M., & Kantner, J. F. (1978a). Contraceptive patterns and premarital pregnancy among women aged 15-19 in 1976. Family Planning Perspectives, 10(3), 135-142.

Zelnik, M., & Kantner, J. F. (1978b). First pregnancies to women aged 15-19: 1976 and 971. Family Planning Perspectives, 10(1), 11-20.

Zelnik, M., & Kantner, J. F. (1979). Reasons for nonuse of contraception by sexually active women aged 15-19. Family Planning Perspectives, 11(5), 289-296.

Zelnik, M., & Kantner, J. F. (1980). Sexual activity, contraceptive use, and pregnancy among metropolitan-area teenagers: 1971-1979. Family Planning Perspectives, 12(5), 230-237.

APPENDICES

APPENDIX A

SUBJECT RECRUITMENT INSTRUCTIONS

WHAT TO DO AT TEEN RAP SESSIONS

1. Bring: sign-up sheet, contact cards, appointment cards, and your schedule.

2. Arrive 5-10 minutes early, introduce yourself to the Teen Rap leader and tell her you want to take a few minutes at the end of the session to tell the teens about the study.

3. If everyone goes around and gives their name, or if the leader asks you to introduce yourself:

   e.g., "Hi, I'm _____ and I'm a student from Michigan State. I'm here to ask you to volunteer for a study I'm working on and I'll tell you all about it at the end of Teen Rap."

4. During the session, do anything you can to appear interested and friendly.

5. At the end of the session (preferably after the presentation but before the teens are getting their numbers, grabbing their bags and leaving), tell them about the study and encourage them to participate:

   e.g., "Hi, I'm _____ and I'm a student at Michigan State University. I'm working on the Teen Perspective Study which is a study

to find out how teens make decisions about using birth control. I'm looking for young women 13-17 years old to help us with our study. What that would involve is being interviewed for about one hour by a Michigan State student. The interview is a set of questions about you, your family, and your feelings about sexuality and birth control. If you choose to participate, you will get paid $5.00 for your time. This study is completely voluntary -- it doesn't have anything to do wih getting services at the clinic -- and it's completely confidential -- which means that no one except the student who interviews you will know what answers you give.

I'd <u>really</u> appreciate your participation, because even though a lot of people think they know the opinions of young women your age, only <u>you</u> can tell us what you really think. If you decide to be interviewed, you not only will be helping us out but you'll also get $5.00 for an hour or less of your time. I can set up any interview time that's convenient for you, and you can be interviewed either at the clinic or somewhere else. If you're interested in signing up, I'll be sitting at the table in the outside room. Does anyone have any questions about the study?"

6. Sign them up using sign-up sheet. Give them the appointment (reminder) cards. If the interview is at the clinic, tell them the interviewer will meet them in the waiting room. Use your schedule to sign up other times. Hand out **Contact Cards** only as a last resort (star your name).

7. Thank Teen Rap leader. (Could offer to help clean up.)

8. Give receptionist at the front desk a copy of the sign-up sheet so the desk will know when to expect teens to show up for interviews.

9. After you leave: Call other interviewers to tell them when (and if) they have someone signed up for an interview. Call me (Lynn) if there were any problems or concerns.

APPENDIX B

APPOINTMENT CARD AND CONTACT CARD EXAMPLES

TEEN PERSPECTIVES STUDY

PLEASE CALL ONE OF THE MICHIGAN STATE STUDENTS BELOW TO SET UP AN INTERVIEW. INTERVIEWS WILL TAKE ABOUT ONE HOUR, FOR WHICH YOU WILL BE PAID $5.00. IF YOU DON'T FIND US AT HOME (AND DON'T WANT TO LEAVE A MESSAGE FOR ONE OF US TO CALL YOU), PLEASE KEEP TRYING.

SHERRY 353-0000

PAM 349-0000

MARY 332-0000

TEEN PERSPECTIVES STUDY

THANK YOU FOR VOLUNTEERING TO HELP US WITH OUR STUDY. YOU ARE SCHEDULED FOR A ONE-HOUR INTERIVEW, FOR WHICH YOU WILL BE PAID $5.00. THE INTERVIEW WILL TAKE PLACE AT 701 N. LOGAN, ROOM ____, PLEASE CALL THE MICHIGAN STATE STUDENT BELOW IF YOU ARE UNABLE TO KEEP THIS APPOINTMENT OR IF YOU HAVE ANY QUESTIONS ABOUT THIS STUDY.

INTERVIEW DATE_____ TIME_____

INTERVIEWER_____ PHONE_____

APPENDIX C

TYPICAL TRAINING SCHEDULE

Week 1

Topic: Background information on the research study

Assignment (to be completed before the next class session): Read the Research Proposal and look over the interview materials.

Week 2 -- First Session

Topic: Factors related to contraceptive risk-taking

Assignment: Read the Literature Review for this study

Week 2 -- Second Session

Topic: Item-by-item review of the Interview Schedule

Assignment: Tape record a practice administration of the Interview Schedule, to be turned in at the next class session.

Week 3 -- First Session

Topic: Item-by-item review of the paper-and-pencil measures (i.e., Health Locus of Control, Attitude Questionnaire, and Post-Interview Assessment)

Assignment: Practice administering paper-and-pencil measures

Week 3 -- Second Session

Topic: Item-by-item review and demonstration of the administration procedures for the Perceptions Questionnaire.

Assignment: Tape record a practice administration of the Perceptions Questionnaire (tape to be turned in at the next class session). Also -- attend a Teen Rap session if not already done.

Week 4 -- First Session

Topic: In-class roleplays of interview sessions, with feedback

Assignment: Assigned reading of two book chapters on interviewing techniques (one to read thoroughly and one to skim)

Week 4 -- Second Session

Topic: Additional in-class roleplays of interview sessions. Review of "Interview Instructions" (Table 3) and "Interview Materials Checklist" (Table 4). Finalize interview procedures in preparation for beginning "real" interview next week.

Week 5

Topic: Review of other research studies

Assignment: None, as interviewers will be conducting "real" interviews.

Week 6

Topic: Interviewing issues and problems -- review of Week 4 assigned readings and discussion of interviewing experiences

Assignment: In addition to conducting interviews, interviewers have a number of relevant articles which they complete during weeks which are "light" in terms of interviewing time.

Week 7

Individual meetings with the author for evaluation and feedback.

Week 8 - Week 10

Topic: Interviewing issues and problems, with discussions of related articles and topics (i.e., reliability and validity, research methodology, sources of bias) as time permits.

APPENDIX D

INTERVIEW SCHEDULE

1

I.D. _____

How did you hear about this study?
Have you ever been to a Teen Rap session?

_____

_____

_____

_____ 1. How old are you?

2. Indicate race of respondent:

1 Caucasian

2 Black

3 Latino

4 Oriental

5 Other _____

3. Are you in school?
(IF IN SCHOOL, ASK:) What grade are you in?

01 no, not in school (CONTINUE)

_____ yes, in grade: (GO TO 8)

_____ 4. What was the last grade you completed?

5-6. How come you're not in school?
(OPEN, CODE 1ST & 2ND CHOICES)

1st	2nd	
01	01	I flunked, was failing
02	02	I was kicked out
03	03	I got sick
04	04	I got pregnant
05	05	I just didn't want to go
06	06	I had to work
07	07	Someone wanted me to quit
08	08	I graduated
77	77	don't know
88	88	other _____

_____

7. Are you planning to go back to school?
(IF YES, ASK DETAILS)

1	no (GO TO 10)
2	yes, definite
3	yes, vague
4	don't know

3

8. How far do you plan to go in school?

1 some high school

2 high school graduation

3 technical school

4 college

5 professional school

7 don't know

9. What kinds of things have you considered you might do when you finish school? (OPEN)

_____

_____

_____

10. Are you working now?
(IF NOT WORKING, ASK:) Are you looking for a job?

1 Unemployed

2 Unemployed but seeking work

3 Occasional paid work

4 Part-time work

5 Full-time work

4

11. What kinds of things do you do when you're not in school or at your job? (OPEN)

_____

_____

_____

12. What religion are you?

_____

13. How important is religion to you? (SHOW PINK CARD)

1 not important

2 somewhat important

3 very important

14. Have you ever been married?

1 single

2 married

3 divorced

4 separated

5 widowed

5

15. Do you think you will ever marry?

1 no

2 yes

3 don't know

16. Do you have a boyfriend?

1 no (GO TO 19)

2 yes

17. How many months have you known your boyfriend?

_____ months

18. How often do you get together with him? (OPEN)

1 less than once/week

2 once or twice/week

3 several times/week

4 daily

6

19. Altogether, how many children do you want to have?

1 one

2 two

3 three

4 four or more

6 none (GO TO 21)

7 don't know

20. When do you want to have them?
(IF RESPONDENT GIVES A SPECIFIC AGE OR NUMBER OF YEARS, ASK:) Why did you pick that age?

1 already have number desired

2 now

3 in a few years

4 when I'm married

5 when I've finished my education

7 don't know

8 other _____

7

21-32. Now I am going to ask you some questions about your family. How many brothers and sisters do you have? How old are they?

brothers' ages	sisters' ages
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

33-36. How old are your parents? (IF SHE HAS BOTH PARENTS AND STEP=PARENTS, HAVE HER CHOOSE THE ONES SHE LIVES WITH OR FEELS CLOSEST TO; DECEASED = 99; DON'T KNOW = 07)

_____ mother's age

_____ father's age

_____ (IF MOTHER DECEASED, ASK:) How old were you when she died?

_____ (IF FATHER DECEASED, ASK:) How old were you when he died?

37. Is this person your natural mother?

1 natural mother

2 step-mother

3 foster mother

8

38. Is this person your natural father?

1 natural father

2 step-father

3 foster father

39-42. All the rest of the parent questions refer to these parents.

How far in school did your (MOTHER) go?
(REPEAT FOR EACH APPLICABLE FAMILY MEMBER)

Mother	Father	Oldest Sister	Oldest Brother	
1	1	1	1	less than high school
2	2	2	2	some high school
3	3	3	3	high school graduate
4	4	4	4	some college, technical school
5	5	5	5	college graduate
6	6	6	6	higher degrees
7	7	7	7	don't know

43-46. What does your (MOTHER) do for a living?
(OPEN, REPEAT FOR EACH APPLICABLE FAMILY MEMBER)

Mother	Father	Oldest Sister	Oldest Brother	
1	1	1	1	unemployed
2	2	2	2	homemaker
3	3	3	3	service or unskilled
4	4	4	4	clerical, sales, semi-skilled
5	5	5	5	skilled or craftsperson
6	6	6	6	proprietor, professional, technical, managerial
7	7	7	7	don't know

_____ 47. Including yourself, how many people live in your home?

48-57. Who do you live with? (OPEN) Anyone else?

No	Yes	
1	2	mother
1	2	father
1	2	brother(s)
1	2	sister(s)
1	2	other relatives
1	2	boyfriend/husband
1	2	children
1	2	dormitory
1	2	alone
1	2	other, non-relatives _____

58-59. (IF A PARENT IS OUT OF THE HOME, ASK:)
How many months has it been since you saw your _____ ?

mother: _____ months

father: _____ months

60-63. Now, I am going to ask you how you get along with your family. Think about those times you spend with your (MOTHER) . How would you describe those times? (SHOW YELLOW CARD) (REPEAT FOR EACH APPLICABLE FAMILY MEMBER)

Mother	Father	Oldest Sister	Oldest Brother	
1	1	1	1	very bad
2	2	2	2	bad
3	3	3	3	more bad than good
4	4	4	4	more good than bad
5	5	5	5	good
6	6	6	6	very good

64-65. Think about the money you/your family/the people you live with live on.
Where does it come from? (READ CHOICES)
Anywhere else?

1st choice	2nd choice	
1	1	wages
2	2	savings and investments
3	3	alimony and child support
4	4	welfare (aid)
5	5	social security
7	7	don't know
8	8	other _____

12

66. In general, who makes most of the decisions in your family? (OPEN)

_____

67. Who mostly takes care of household work? (OPEN)

_____

____ 68. How old was your mother the first time she was pregnant? (DON'T KNOW = 07)

69. Do you see your life in 15 years, when you are about 30 years old, as similar or different from your mother's life? (SHOW BLUE CARD)

1 nothing like her life

2 not very much like her life

3 a little like her life

4 somewhat like her life

5 very much like her life

70. How happy would you say your mother is with her life? (SHOW GREEN CARD)

1 very unhappy

2 unhappy

3 O.K.

4 happy

5 very happy

71. Have any of your sisters ever been pregnant?

1 no (GO TO 76)

2 yes

72. (IF MORE THAN ONE, SAY: Pick the sister who you feel closest to.)

_____ How old was she when she got pregnant?

73. Was she married?

1 no

2 yes

14

74. What did she decide to do with the pregnancy?

1 deliver and keep

2 deliver and give-up

3 have an abortion

8 other _____

75. Did her life get better, stay the same, or get worse because of her decision?

1 got worse

2 stayed the same

3 got better

76-77. Has (your mother/any of your sisters) ever had an abortion?

Mother	Sister	
1	1	no
2	2	yes
7	7	don't know

78-79. Has (your mother/any of your sisters) ever had a baby who was brought up by someone else?

Mother	Sister	
1	1	no
2	2	yes
7	7	don't know

80-81. Has your (your mother/any of your sisters) ever used any kind of birth control including methods such as condoms, withdrawal, or rhythm?

Mother	Sister	
1	1	no (SKIP NEXT QUESTION FOR THIS TARGET)
2	2	yes
7	7	don't know (SKIP NEXT QUESTION FOR THIS TARGET)

16

82-83. What kind of experience has your (mother/ closest sister) had using birth control? (SHOW YELLOW CARD)

Mother	Sister	
1	1	very bad
2	2	bad
3	3	more bad than good
4	4	more good than bad
5	5	good
6	6	very good
7	7	don't know

_____ 84. How old were you when you had your first menstrual period?

85. How did you feel about getting your first period? (OPEN)

_____

_____ 86. How old were you when you had sex for the first time?

17

87. Have you ever used <u>any</u> kind of birth control including methods such as condoms, withdrawal or rhythm?

1 no (GO TO 91)

2 yes

88. How old were you when you used <u>any</u> kind of birth control for the first time?

_____

89. What kind of birth control did you use? (OPEN)

_____

90. How long after you first had sex was it before you first used birth control? (OPEN)

_____

_____ 91. How many times have you had sex in the past two months?
(IF NEVER USED BIRTH CONTROL, GO TO 94)

_____ 92. How many of those times did you use birth control?

18

93. What kinds of birth control have you ever used? (FOR EACH METHOD MENTIONED, ASK:) When?

_____

_____

_____

_____

_____

_____

_____ 94. How many guys have you ever had sex with?

_____ 95. How many in the past two months? (IF NEVER USED BIRTH CONTROL, GO TO 98)

19

96. What do you like about the birth control method you're using now? What do you dislike about it? Anything else?

_____

_____

_____

_____

_____

_____

97. Using the method of birth control you're using now, how likely do you think it is you could get pregnant? (SHOW ORANGE CARD)

1 0% = not at all

2 20% = maybe

3 40% = some chance

4 60% = pretty likely

5 80% = very likely

6 100% = sure thing

20

98. If you don't use any method of birth control, how likely do you think it is you could get pregnant? (SHOW ORANGE CARD)

1 0% = not at all

2 20% = maybe

3 40% = some chance

4 60% = pretty likely

5 80% = very likely

6 100% = sure thing

99. Have you ever been pregnant?

1 no (GO TO 107)

2 yes

100. How old were you when you got pregnant? (ASK FOR EACH TIME PREGNANT)

_____ first time

_____ second time

_____ third time

101-103. What did you decide to do about the pregnancy?

1st	2nd	3rd	
1	1	1	delivered and kept
2	2	2	delivered and gave up/adopted out
3	3	3	had an abortion
4	4	4	miscarried
8	8	8	other _____

104-106. How did it come about that you got pregnant? (OPEN)

1st	2nd	3rd	
1	1	1	contraceptive failure--method
2	2	2	contraceptive failure--user
3	3	3	not using contraceptives
4	4	4	wanted to get pregnant
5	5	5	just expected to get pregnant
6	6	6	didn't think I could get pregnant
8	8	8	other _____

107. If tomorrow, you realized you were pregnant what would you do about the pregnancy?

1 deliver and keep

2 deliver and give up/adopt out

3 deliver, undecided whether or not would keep

4 have an abortion

7 don't know

_____ 108. How many of your close friends have ever been pregnant? (IF NONE, GO TO 113)

_____ 109. Pick the closest friend who has ever been pregnant. How old was she when she got pregnant?

110. Was she married?

1 no

2 yes

111. What did she decide to do about her pregnancy?

1 deliver and keep

2 deliver and give up/adopt out

3 have an abortion

8 other _____

112. Did her life get better, stay the same, or get worse because of the pregnancy?

1 got worse

2 stayed the same

3 got better

113. What are some reasons why a young woman your age might not use birth control?
Can you think of any others?

_____

_____

_____

_____

_____

_____

114. Have any of these reasons ever been true for you? Which ones? When?

_____

_____

_____

_____

115. What types of things would make it easier for a young woman your age to use birth control? Can you think of anything else?

_____

_____

_____

_____

_____

116. Where have you gotten most of your information about birth control? Anywhere else? (OPEN)

_____

_____

_____

_____

APPENDIX E

HEALTH LOCUS OF CONTROL

HEALTH LOCUS OF CONTROL

Your answers to the statements on this page will help us understand your opinions on staying healthy. Once again, there are no right or wrong answers. We are only interested in your opinions.

For each statement on this page:

Circle 1 if you "agree" with the statement.

Circle 2 if you only "agree a little" with the statement.

Circle 3 if you only "disagree a little" with the statement.

Circle 4 if you "disagree" with the statement.

1.	If I take care of myself, I won't get sick.	1	2	3	4
2.	Whenever I get sick it is because of something I've done or not done.	1	2	3	4
3.	Good health is largely a matter of luck.	1	2	3	4
4.	No matter what I do, if I am going to get sick I will get sick.	1	2	3	4
5.	Most people do not realize how much their illnesses are caused by accidental happenings.	1	2	3	4
6.	I can only do what my doctor tells me to.	1	2	3	4
7.	There are so many strange diseases around that you can never know how or when you might pick one up.	1	2	3	4
8.	When I feel ill, I know it is because I have not been getting enough exercise or eating right.	1	2	3	4
9.	People who never get sick are just lucky.	1	2	3	4
10.	People's ill health results from their own carelessness.	1	2	3	4
11.	I am directly responsible for my health.	1	2	3	4

APPENDIX F

ATTITUDE QUESTIONNAIRE

I.D. _____

Here we are asking you to tell us what you think or how you feel in certain situations. Some young women have been in these situations, others have not. Either way, just answer the question the way you think or feel right now.

Each sentence below has a couple of words left out. We want you to choose which of two possible answers makes the sentence most right for you. Just check the answer that best describes how you might think or feel.

1. The idea of talking to my mother about birth control seems _____.

   _____ pretty hard

   _____ pretty easy

2. I think it would be _____ to talk with my mother about birth control.

   _____ quite helpful

   _____ not very helpful

3. I have _____ choices when it comes to birth control.

   _____ a lot of

   _____ not very many

4. If I really love my partner, using birth control seems _____ to me.

   _____ more important

   _____ less important

5. I _____ that if people know I'm using birth control they will think I "give it away."

   _____ worry

   _____ don't worry

6. The idea of talking to my partner about what birth control method to use seems _____.

   _____ rather hard

   _____ rather easy

7. I feel _____ with the ideas of talking to friends about birth control.

   _____ pretty comfortable

   _____ pretty uncomfortable

8. I think that _____ of the methods of birth control would be okay for me.

   _____ none

   _____ at least one

9. If my mother knew I was using birth control, she would _____.

   _____ give me a hard time

   _____ understand

10. I would prefer that _____.

    _____ sex "just happen"

    _____ I know in advance

11. I would _____ if I got pregnant in the near future.

_____ feel okay

_____ be pretty unhappy

12. I feel like it's _____ that I'll get pregnant if I don't use birth control.

_____ pretty likely

_____ not so likely

13. I'm _____ I'm comfortable talking to anyone about birth control.

_____ sure

_____ not so sure

14. It would be _____ using birth control if I wasn't having sex very often.

_____ a real hassle

_____ okay

15. I _____ that if I used birth control my boyfriend might pressure me to have sex more often.

_____ I think

_____ I don't think

16. For me "taking a chance" would be _____ than having to see a doctor to get birth control

_____ better

_____ worse

17. If we didn't have birth control with us, I would _____ to have sex.

_____ want to wait

_____ not want to wait

18. I would feel _____ asking my boyfriend to use a rubber.

_____ pretty comfortable

_____ pretty uncomfortable

19. I _____ about the idea of touching myself, like when I might use tampons, or insert a diaphram or foam.

_____ don't mind

_____ feel somewhat uncomfortable

20. If I became a mother now, I think I'd have _____ reaching my own goals for the future.

_____ a much harder time

_____ not such a hard time

21. I imagine that if I had a baby now, I would have _____ getting boyfriends.

_____ a harder time

_____ an easier time

22. If I were to have a baby while I was still a teenager, I'd have _____ being a good mother.

_____ a hard time

_____ an easy time

23. It seems to me that if I were to have a baby as a teenager, people I know would _____ attention to me.

_____ pay more

_____ pay less

24. I bet I'd be _____ if I were a pregnant teenager.

_____ proud

_____ embarrassed

25. If I had a baby now, it would probably be _____ to do things with my friends.

_____ just as easy

_____ more difficult

APPENDIX G

PERCEPTIONS QUESTIONNAIRE

1

I.D. _____

Now, I am going to ask you some questions about different methods of birth control. Most people don't know the exact answers to these questions, so don't be surprised if you aren't sure what the answers are. When you're not sure, I would like you to just give your best guess about what the correct answer might be.

First of all, I'd like you to imagine your chances of getting pregnant using each method of birth control.

1. For example, if you used birth control pills, how likely is it that you would get pregnant? (SHOW ORANGE CARD)

1 0% = not at all

2 20% = maybe

3 40% = some chance

4 60% = pretty likely

5 80% = very likely

6 100% = sure thing

2. How about if you used an IUD?

1 0% = not at all

2 20% = maybe

3 40% = some chance

4 60% = pretty likely

5 80% = very likely

6 100% = sure thing

3. How about if you used a diaphram?

1 0% = not at all
2 20% = maybe
3 40% = some chance
4 60% = pretty likely
5 80% = very likely
6 100% = sure thing

4. How about if you used contraceptive foam?

1 0% = not at all
2 20% = maybe
3 40% = some chance
4 60% = pretty likely
5 80% = very likely
6 100% = sure thing

5. How about if your partner used condoms?

1 0% = not at all
2 20% = maybe
3 40% = some chance
4 60% = pretty likely
5 80% = very likely
6 100% = sure thing

6. How about if you used foam and condoms together?

1 0% = not at all
2 20% = maybe
3 40% = some chance
4 60% = pretty likely
5 80% = very likely
6 100% = sure thing

7. How about if you used vaginal inserts?

1 0% = not at all
2 20% = maybe
3 40% = some chance
4 60% = pretty likely
5 80% = very likely
6 100% = sure thing

8. How about if you used rhythm?

1 0% = not at all
2 20% = maybe
3 40% = some chance
4 60% = pretty likely
5 80% = very likely
6 100% = sure thing

4

9. How about if your partner used withdrawal?

1 0% = not at all

2 20% = maybe

3 40% = some chance

4 60% = pretty likely

5 80% = very likely

6 100% = sure thing

---

10. Now, I'd like you to think about how easy or difficult it would be to get birth control. If you <u>didn't</u> have your parent's permission, how old would you have to be to get birth control pills?

_____

_____ 11. How about to get an IUD?

_____ 12. How about to get a diaphram?

_____ 13. How about to get contraceptive foam?

_____ 14. How about to get condoms?

_____ 15. How about to get vaginal inserts?

5

---

16. Now I'd like you to guess the costs of the different birth control methods. First of all, how much do you think a month's supply of birth control pills would cost you?

$_____

17. How much do you think it would cost you to get an IUD?

$_____

18. How much do you think it would cost you to get a diaphram?

$_____

19. How much would a 1.78 ounce can of contraceptive foam cost you?

$_____

20. How much would a package of 12 condoms cost you?

$_____

21. How much would a package of 12 vaginal inserts cost you?

$_____

Now, I'd like you to think about the different side effects you might experience if you used the different methods of birth control. Some women get bad side effects from using birth control and others do not. For these questions, I want you to guess whether or not <u>you</u> would get the side effect using each birth control method. I will give you a card with a list of the different birth control methods I've already mentioned. For each question, please tell me which of the birth control methods might cause the side effect. (SHOW WHITE CARD)

22-27. Which of those birth control methods do you think would be dangerous to your health to use?

No	Yes	
1	2	birth control pills
1	2	IUD
1	2	diaphram
1	2	foam
1	2	condoms
1	2	vaginal inserts

28-33. Which of those birth control methods do you think would cause you to gain weight?

No	Yes	
1	2	birth control pills
1	2	IUD
1	2	diaphram
1	2	foam
1	2	condoms
1	2	vaginal inserts

34-39. Which of those birth control methods do you think would make you feel sick to your stomach?

No	Yes	
1	2	birth control pills
1	2	IUD
1	2	diaphram
1	2	foam
1	2	condoms
1	2	vaginal inserts

40-45. Which of those birth control methods do you think would cause you to get vaginal infections?

No	Yes	
1	2	birth control pills
1	2	IUD
1	2	diaphram
1	2	foam
1	2	condoms
1	2	vaginal inserts

46-51. Which of those birth control methods do you think would cause you to have problems with your complexion?

No	Yes	
1	2	birth control pills
1	2	IUD
1	2	diaphram
1	2	foam
1	2	condoms
1	2	vaginal inserts

52-57. Which of those birth control methods do you think would make it hard for you to get pregnant later on when you stopped using birth control?

No	Yes	
1	2	birth control pills
1	2	IUD
1	2	diaphram
1	2	foam
1	2	condoms
1	2	vaginal inserts

58-65. Which of those birth control methods do you think would interfere with enjoying sex?

No	Yes	
1	2	birth control pills
1	2	IUD
1	2	diaphram
1	2	foam
1	2	condoms
1	2	vaginal inserts
1	2	rhythm
1	2	withdrawal

66-73. Which of those birth control methods do you think would be difficult to use?

No	Yes	
1	2	birth control pills
1	2	IUD
1	2	diaphram
1	2	foam
1	2	condoms
1	2	vaginal inserts
1	2	rhythm
1	2	withdrawal

---

74. In the last part of this interview, I'd like to ask you a few questions about abortion. First of all, if you <u>didn't</u> have your parent's permission, how old do you think you would have to be to get an abortion?

_____

$_____ 75. How much do you think an abortion would cost you?

76. Do you think an abortion would be dangerous to your health?

No	Yes
1	2

77. If you had an abortion, do you think it would be be hard for you to get pregnant later on?

No	Yes
1	2

78. If you had an abortion, do you think you would have emotional problems later on?

No	Yes
1	2

APPENDIX H

POST-INTERVIEW ASSESSMENT

Post-Interview Assessment

ATTITUDE

NO	YES	
1	2	withdrawn
1	2	nervous
1	2	insecure/approval-seeking
1	2	confident
1	2	outgoing

APPEARANCE

1	neat and carefully groomed, attractive
2	neat and adequately groomed
3	carelessly dressed and groomed

RESPONSES

1	brief
2	adequate
3	elaborate

EYE CONTACT

1	little or none
2	moderate
3	good

LEVEL OF COOPERATION

1	uncooperative
2	moderately cooperative
3	very cooperative

COMPREHENSION OF PAPER-AND-PENCIL MEASURES

1	excessive difficulty
2	moderate difficulty
3	little or no difficulty

(OVER)

EVIDENCE OF NEGATIVE FEELINGS TOWARD:

NO	YES	
1	2	mother
1	2	father
1	2	boyfriend
1	2	pregnancy, in general
1	2	abortion, in general
1	2	birth control, in general
1	2	sexuality, in general
1	2	self
1	2	other _____

APPENDIX I

CONSENT FORM

CONSENT TO PARTICIPATE IN SURVEY

I volunteer to participate in this survey about sexuality and birth control. I understand that this study is being conducted by Lynn Snellman, a graduate student at Michigan State University. The purpose of this study is to learn more about how teenagers make decisions about birth control. I understand that the information I give is confidential, my name will not appear with the information, and no one except the interviewers will be able to see it. I will be paid $5.00 for taking part in this survey, but I do not have to answer any questions I do not want to.

_____ _____

Signature of Respondent Signature of Interviewer

_____ _____

Printed Name of Respondent Printed Name of Interviewer

date _____

APPENDIX J

INTERVIEW INSTRUCTIONS

INTERVIEW INSTRUCTIONS

1. Introduce yourself: Name
   That you're a M.S.U. student
   That you're not connected to the clinic in any way

2. Explain purpose of study: to find out how teens make decisions about using birth control.

3. Explain confidentiality: that their name will not appear with the information they give; that only the interviewers will see the information they give; that the clinic won't even know whether or not they decided to participate.

4. Explain voluntary participation: that they don't have to answer any question they don't want to answer.

5. Ask them to read and sign the consent form -- explain that their signing a consent form is required by M.S.U. to verify that they understand what you've just told them.

6. Pay them the $5.00 for their time, tell them the interview and forms should take about one hour to complete.

7. Introduce interview, ask them to tell you if any question is unclear.

8. Ask questions contained in Interview Schedule.

9. Introduce Health Locus of Control questionnaire. Read instructions out loud.

10. Introduce Attitude Questionnaire. Read instructions out loud.

11. Introduce Perceptions Questionnaire. Show birth control methods while asking questions.

12. Ask them what they thought of the interview and questionnaires. Is there anything they think should be changed?

13. Thank them for their time and effort.

14. Ask if they would like cards with your name and phone number for any friends who might be interested in being interviewed. (Mark a star by your name on the cards.)

15. As soon as they leave, complete the Post-Interview Assessment form.

16. Check to make sure the correct ID number is on the top of every form.

APPENDIX K

INTERVIEW MATERIALS CHECKLIST

INTERVIEW MATERIALS CHECKLIST

You will need to bring to each interivew:

1. Tape Recorder

2. Two Tapes (one spare)

3. $5.00 cash

4. Birth Control Methods box consisting of:

   a. packet of birth control pills
   b. IUD
   c. diaphragm
   d. condom
   e. contraceptive foam (small can)
   f. vaginal insert (i.e., Encare Oval)

5. Folder of Interviewing Forms consisting of:

   a. Consent Form
   b. Interview Schedule
   c. Health Locus of Control
   d. Attitude Questionnaire

6. Set of colored index cards (containing the response options used in the Interview Schedule)

7. Contact Cards (star your name on the cards)