To the Graduate Council:

I am submitting herewith a dissertation written by Ola Lumpkin Jennings entitled "Return Visit Compliance and Noncompliance Among Adolescent Family Planners." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Social Work.

Catherine Faver

Catherine Faver, Ph.D., Major Professor

We have read this dissertation
and recommend its acceptance:

Jane C. Kronick

Ben P. Granger

Jane Anson Fox

Accepted for the Council:

C W Minkel

Associate Vice Chancellor
and Dean of The Graduate School

Return Visit Compliance and Noncompliance Among Adolescent Family Planners

A Dissertation

Presented for the

Doctor of Philosophy

Degree

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Ola Lumpkin Jennings

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Dedication

I dedicate this dissertation to the memory of my late father, Mr. Jimmy Lumpkin and my mother, Mrs. Gertrude Sims Lumpkin, a widow, poor, black, born and reared in rural Georgia, who had the vision to imagine and the gumption to persevere so that all of her eight children would be provided an educational opportunity.

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Abstract

This exploratory cross-sectional research attempted to discover the reasons why teenagers who were enrolled for family planning services in a southern public health district experienced return visit compliance and non-compliance after adoption of a contraceptive method. The major features considered in this research were whether any of the teenagers' reproductive health history characteristics, along with elements from a modified version of the original Health Belief Model, provided an empirical base for describing those who kept and did not keep their scheduled return clinic visits for follow-up care.

Black teenage family who fell in both categories were contacted and administered a questionnaire to gather their individual characteristics and reasons. A comparison of the information from the questionnaires were carried out using Chi-Square and the T-Test . The results of all analyses revealed some significant findings on demographic and reproductive health history characteristics and health perceptions. An interesting beginning profile of the comparison groups emerged.

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Chapter 1

Introduction

There are approximately twelve million sexually active teenagers, representing 41 percent of the nation's 29 million teenage population (Guttmacher, 1981). One of the most troubling consequences of teenage sexual activity is unintended pregnancy (Zelnik and Kantner, 1979, 1980, Trussell, 1981 and Furstenberg, Jr., 1991). Unintended teenage pregnancy is a major societal concern and its prevention is an important goal of public health family planning clinics (Dryfoos, 1988 and Hatcher, Stewart, Trussell, Kowal, Guest, Stewart, and Cates, 1990). In order to help prevent this problem, contraception services are made available at family planning clinics and teenagers may enroll and adopt a contraceptive method if medically feasible (Hatcher et al.). Family planning providers are concerned about three major issues relative to teenage participation at family planning clinics for contraception services: (1) sexually active teenagers do not enroll for these services as early as they should, (2) the level of contraceptive use is reflected by their high pregnancy rates, and (3) approximately 50 percent who enroll for family planning services and adopt a method of contraception fail to keep scheduled return visits. In order for individuals to be compliant with a contraception program at public health family planning clinics, they must use the contraceptives as prescribed and adhere to a schedule of return visits for contraceptive supply refills, contraception education, and general physical health monitoring.

The issue of low return visits among teenage family planners is increasingly becoming an area of concern for public health family planning providers. The concern is highly related to the teenage pregnancy issue since low return visit compliance at family planning clinics often contributes to inconsistent contraceptive use and unintended pregnancy (Zelnik and Kantner, 1979 and 1980; Jay, Durant, Shoffitt, Linden, and Litt, 1984; and Hogan, Astone and Kitagawa, 1985). Minimal information exists concerning the reasons why some teenagers return for contraceptive services as scheduled at family planning clinics while others do not (Namerow, Philliber and Hughes, 1983, Herceg-Baron, Furstenberg, Shea, and Harris, 1984, and Balasonne, 1989). Previous studies have focused on determining characteristics of teenagers who are compliant or noncompliance with the use of contraceptives (e.g. Litt, Clusky, and Rudd, 1980, Durant, Jay, Linden, Shoffitt and Litt, 1984, and Emans, Grace, Woods, Smith, Klein and Merola, 1987). Although we need to continue our efforts in exploring patterns of teenage contraceptive use, it is equally important for us to ascertain reasons for low return visit compliance among teenagers who receive contraceptives at public health family planning clinics. More information is needed in this area because issuance of contraceptives does not necessarily ensure that teenagers who receive them will use the method as prescribed for pregnancy prevention. However, compliance with scheduled return visits at family planning clinics helps to contribute to regular contraceptive use and ultimately prevention of pregnancy. Moreover, it is a general consensus among family planning providers that knowledge about return visit compliance is as equally important as knowledge about contraceptive use because that combined knowledge base enhances the understanding of the implications involved in

the full range of teenage contraceptive behaviors (Namerow et al., Herceg-Baron et al., and Balasonne).

The original Health Belief Model (Becker, Maimian, Kirscht, Haefner, Drachman, and Taylor, 1979) has been proposed to aid in evaluating compliance pertinent to health care issues. (See Appendix A). According to that model, several factors influence whether or not a person will comply with a recommended health plan. Those factors include the perceptions which individuals have about the health condition and the recommended health plan, demographic factors, social influences, and cues to action, which are the services provided by the agency to help influence compliance. Balasonne (1989) and others have also identified various health factors associated with return and non-return visit compliance among teenage family planners.

Public health officials at the Northeast Health District in Georgia are concerned about the problem of low return clinic visit compliance among teenager family planners for several reasons. According to their data, approximately 40 percent of teenagers return for their scheduled family planning clinic visits in twelve months after enrollment for contraceptive services. The average number of family planning clinic visits (including the initial visit) made by teenagers, 10 to 19 years old, is two. The reasons for such low return clinic visits remain unknown. Additionally, according to recent vital health statistical reports, black teenagers experience higher pregnancy and unwed childbearing rates. Consequently, this group may also be at a higher risk for noncompliance at family planning clinics. Health officials have expressed a need for relevant information to help formulate programmatic plans to address the problem.

Purpose

The purposes of this study were two-fold. The first one was to conduct a survey of black American teenagers who were enrolled for public health family planning services at the Northeast Health District and determine their reasons for having kept or having failed to keep scheduled return clinic visits for continued contraceptive services. The second purpose was to determine whether the Health Belief Model, along with characteristics from the reproductive health history, provided an empirical base for use in describing those teenagers who kept their scheduled return visits from those who did not.

Significance of the Study

Family planning providers are concerned about three major issues relative to contraceptive behaviors among sexually active teenagers: (1) their enrollment for family planning services; (2) their contraceptive use; and (3) whether or not they keep scheduled return visits for follow-up care after adoption of a contraceptive method. However, much of the research about teenage contraceptive behaviors has focused on describing the characteristics of teenagers who use and do not use contraceptives (Nathanson and Becker, 1983 and Whitley, Jr. and Schofield , 1985-1986). Relatively little information exist about teenage return visit compliance at family planning clinics. In fact, only three studies could be found which specifically addressed this subject. Namerow, Philliber, and Hughes (1983) investigated the reasons why teenage family planners missed their scheduled return visits at the family planning clinics and the effect of follow-up mailed letters and telephone calls

in promoting the likelihood of return visit compliance. Herceg-Baron, Furstenberg, Shea and Harris, (1984) investigated the effect of follow-up telephone calls and family support on return visit compliance. Balasonne (1989) examined various health and demographic characteristics to determine their significance in identifying teenage family planners who are likely to be at risk for non return clinic visit compliance. According to all of those researchers attention needed to be focused on return visit compliance and noncompliance in order to generate more information on the subject. The existing availability of information only about teenage contraceptive use presents an incomplete picture about teenage contraceptive behaviors and programmatic needs. Therefore, one significance of this study is its responsiveness to that empirical gap by investigation and contribution of more information to the limited existing knowledge base about return visit compliance and noncompliance.

Secondly, according to Whitley, Jr. and Schofield, who conducted a literature review of 134 studies reporting on teenage contraceptive behavior, most studies on this subject have tended to be "atheoretical". Nathanson and Becker and Herold (1983) also reported that a substantive framework for evaluating variations in teenage contraceptive behavior lags behind the accumulation of data. This study responded to the need for more theory-based research about teenage contraceptive practice by employing the original Health Belief Model to help conceptualize its framework for evaluating factors contributing to return visit compliance and noncompliance among teenage family planners.

The Health Belief Model has seldom been used to evaluate the contraceptive behaviors of teenagers (Nathanson and Becker, Herold and

Condelli, 1986), although it is the longest lasting construct used for conceptualizing study of health conditions and behaviors. A computerized review of the literature revealed only two studies reporting about teenage contraceptive behavior and family planning which had actually tested the Health Belief Model, and these focused upon contraceptive use (i.e. Condelli, 1986 and Lowe and Radius, 1987). No study could be found which tested the Health Belief Model in evaluating return visit compliance among teenage family planners. Use of it in this study was in response to that gap. The intent was to determine its feasibility for use in helping to describe return visit compliance and non return visit compliance. Also, use of the Health Belief Model was expected to contribute to the development of post hypotheses which could be used in formulating future research projects in this area.

A final significance for this study arose out of a practice perspective. Compliance in health settings is an area of concern for social workers employed in health settings for obvious reasons (Schultz, 1980 and Kumabe, Nishida, O'Hara and Woodruff, 1986). In this instance, low return clinic visits among teenage family planners was a practice concern because they persisted at the Northeast Health District and the reasons for them were unknown. Prior to this research, there had never been an attempt to survey teenage family planners and generate information in that regard. The investigator along with other health officials considered the situation perplexing and recognized the need for clarity and resolution regarding the matter. Foremost, the concern was considered relevant due to the realization that the lack of information concerning the subject might have contributed to professional unresponsiveness to the potential needs which teenage family planners could

have with regard to effective contraceptive practices, and ultimately prevention of unintended pregnancy.

Overall, this self evaluation was expected to provide family planning providers with a better understanding of compliance and noncompliance within public health family planning clinics, could serve as a positive indicator in helping family planning providers make better assessments of the visits associated with either compliance or noncompliance among teenage family planners, and could lead to development of strategies to improve compliance and decrease noncompliance with scheduled return clinic visits.

Chapter 2

Review of the Literature

Teenage Reproductive Health

Teenage Sexual Activity

Teenage sexual activity is on the rise. Studies by Zelnik, Kim and Kantner (1979) and Zelnik and Kantner (1980) reported that one in five teenagers has experienced sexual intercourse by age 16 years, and two-thirds by 19 years old. Recent reports by Miller and Moore (1990) indicated that according to data from the 1988 National Survey of Family Growth, by age 15 years, one-fourth of females have had sex, and by age 19 years, four out of every five females have had sexual intercourse. Hoffert, Kahn and Baldwin (1987) examined data from the 1982 National Survey on Family Growth and found that trends to reflect increases in sexual activity were similar among both black and white teenagers who were born during the 1960s and 1970s. However, those researchers indicated that black teenagers were more likely to have had sexual intercourse, and tended to begin this activity at earlier ages. For example, Hoffert et al., reported that among the cohort of teenagers born between 1965 and 1967, at age 13 years, the cumulative percentage of blacks whom ever had sexual intercourse was 3.2, while that figure was 1.7 for white teenagers the same age. It is noted however, that even though increases in sexual activity appear similar among black and white teenagers, the rise has been most rapid among white teenagers (Zelnik and Kantner and Hoffert, Kahn and Baldwin). Miller and Moore reported that few teenagers have sex

only once, and two-thirds engage in sexual intercourse again within six months of the first encounter. Earlier, Zelnik and Kantner (1977) reported that fewer blacks than whites have many partners and fewer blacks have intercourse very frequently. According to Moore and Peterson (1989), older teens tend to have single sexual partners, with 4% of white females and 6% of black females having six or more sexual partners (Miller and Moore).

Some studies have shown a positive association between age of menarche and first sexual intercourse (Miller and Moore). The average age of menarche for both black and white females appear to have been decreasing over the last 100 years (Miller and Moore), but black females reportedly begin menarche and engage in first time intercourse at earlier ages compared to white teenage females (Westney, Jenkins, Butts and Williams, 1984). According to Zabin, Smith, Hirsch and Hardy (1986), the national average age of menarche is approximately 12.75 for all females, with black females beginning menarche slightly earlier at age 12.74. When a female reaches menarche, this is an indicator of the onset of fertility.

Teenage Pregnancy

Teenage pregnancy is one of the most troubling consequences of teenage sexual activity, and is commonly acknowledged as a major societal problem (Trussell and Furstenberg, Jr., 1991). According to the Children's Defense Fund (1986), each year during the past decade, there were approximately one million pregnancies and 500,000 live births to teenage females 10 to 19 years old. Maciak, Spitz, Strauss, Morris, Warren and Marks (1987) examined pregnancy and birth rates among teenagers, 15 to 18 years old, for the years of 1974, 1980, and 1983. They found that for each year

studied, 18 to 20 percent of sexually active teenagers became pregnant. Trussell (1988)) reported that one out every 10 females, 15 to 19 years old becomes pregnant each year, and 5 out of 6 are unintended. Hatcher et al., reported that 50 percent of first time pregnancies to teenagers occur within the first 6 to 12 months following the onset of sexual activity, and 20 percent during the first month alone.

According to a 1986 publication by the World Health Organization, teenagers, black women and women from lower socioeconomic backgrounds appear to be at a higher risk for unintended pregnancy. Black teenagers are disproportionately represented in non marital teenage childbearing rates, but according to Furstenberg, Jr., the gap between black and white rates is narrowing. He stated that in the 1960s black teenagers accounted for more that 25 percent of all out of wedlock births, while by 1988, that figure had decreased to 14 percent. Similar trends exist in Georgia and the Northeast Health District.

Mott (1986) examined data from the National Longitudinal Survey of Work Experience of Youth and reported that teenagers who have a baby at age 16 are more likely than older females to bear another child within two years of the first delivery. He also indicated that younger black females are more likely to have another birth earlier after the first birth as compared to white and Hispanic teenagers who have babies for the first time. According to data gathered at the Northeast Health District, between 1980 and 1986, 26 percent of teenagers, 10-17 years old, had another birth within two years of their first one.

Teenage pregnancy may also result in miscarriages and abortions. Henshaw and Vort (1988) and Zabin, Hirsch and Emerson (1989), reported that

abortions rates among teenagers are approaching the level of live birth rates, both of which reflect a tremendous collective problem of teenage pregnancy. Zabin et al., reported that for the past 15 years, approximately 40 percent of teenagers who became pregnant in this country had abortions. Henshaw and Vort indicated that between 1977 and 1985, abortion rates for teenagers, 15 to 19 years old, ranged from 37.5 to 43.8. Zabin et al., reported data from the Guttmacher Institute (1989) which indicated that among teenagers less than 16 years old, abortions are more common than childbirth, and that 1.7 abortions have occurred for each childbirth during the past several years. Abortions occur among black and white teenagers. However, white teenagers in Georgia and the Northeast Health District have tended to experience more abortions than black teenagers (Georgia Vital Health Statistics Reports, 1985 to 1990).

Impact of Teenage Pregnancy

Pregnancy has the potential to impact negatively on teenagers, their families, their offspring's and society in general (Mott and Marsiglio, 1985 and Silverman, Torres and Forrest, 1987). Mott et al., and Silverman et. al., reported that teenage parents are less likely to be married, less likely to finish high school if the pregnancy occurred while in school, and experience dependence on public assistance programs, such as Medicaid, for support. An abundance of information is contained in Risking the Future edited by Hayes (1987) which also report about various negative consequences of teenage childbearing. Additionally, according to data generated at the Northeast Health District, only 20 percent of teenagers (under 18 years old) in that catchment area who had a baby at 15 years old have finished high school, 30

percent who had their first child at age 17 finished high school, while almost 90 percent who had their first baby at age 21 finished high school.

Recent debates have emerged concerning the impact of early childbearing on teenagers. For example, Furstenberg, Jr., Brooks-Gunn, and Chase-Lansdale (1989) have questioned how much of the educational deficits reported among teenage mothers should be attributed to childbearing itself or to the fact that some teenagers might have already been at risk for dropping out of school due to poor academic performances prior to pregnancy? In fact, studies by Furstenberg, Jr., Brooks-Gunn and Morgan (1987) and Upchurch and McCarty (1989) show encouraging high school graduation rate trends and abilities by teenage parents to overcome potential social and economic effects which seem to follow early childbearing. In the study by Furstenberg et al., over 300 urban black females were interviewed who had participated as adolescents in a comprehensive health care program in Baltimore, Maryland. The researchers compared the socioeconomic characteristics of the 300 females with comparable samples of females from the 1983 Current Population Study, the 1982 National Longitudinal Survey, and the 1982 National Survey of Family Growth, by age at first birth. Data from the Baltimore study indicated that across samples, most teenagers had graduated from high school after having a baby, with a graduation rate ranging from 59 to 73 percent. Moreover, not only had females graduated from high school, they tended to be employed even if they had previously been on public welfare assistance programs. Upchurch and McCarty examined data from three separate surveys which were a part of the National Longitudinal Surveys of Labor Market Experience (initially conducted in 1967, 1968, and 1972 and continued through the 1980s) and reported the following findings pertaining to high school

graduation among teenage child bearers. They found a 70 percent graduation rate for teenage child bearers in 1958 and a 90 percent graduation rate in 1986, with younger teenagers the least likely to have graduated. Additionally, it was reported that black teenagers who were 17 years old and younger at the birth of their first child were more likely than white counterparts to have graduated from high school. It was thus concluded by Upchurch and McCarty that by 1986, high school graduation had apparently become the norm among teenage parents.

Interestingly, Geronimus (1987) has asserted that early parenthood maybe a rational and adaptive response to socioeconomic deprivation among some poor children. In particular, she has contended that black teenagers become pregnant in order to advance their possibilities for mobility out of poverty status. Furstenberg, Brooks-Gunn, and Lansdale (1989) generally agreed with earlier reports that teenage parenthood has negative effects on the life chances of teenage parents and their children, but added that those effects might be overstated at times and it is sometimes difficult to identify and separate those effects from ones which might lead teenagers to become pregnant in the first place. They postulated that some teenagers might not do well even if they delay childbearing, while others might demonstrate competency in handling the situation. Furstenberg, Jr. (1991) reported that based on information from his Baltimore study, the majority of teenagers from disadvantaged backgrounds felt it better to delay childbearing until their 20's and regarded early childbearing as an unfortunate occurrence. At least twenty-five percent (25%) of participants in the 1987 study by Furstenberg, Jr. et al., remained poor and dependent on public assistance.

The public costs of teenage pregnancy are considerable. Burt (1986) examined twelve studies concerning the financial costs of teenage childbearing and has estimated that in 1985, approximately 17 billion dollars in Aid to Families with Dependent Children, food stamps, and Medicaid were paid to families started as a result of early childbearing. The costs associated with teenage childbearing in the Northeast Health District have been calculated at 6.5 million per year by the University of Georgia Extension Service using the Center for Population Options methodology (Epidemic Among School Children, Northeast Health District, 1991).

The major health consequences of teenage pregnancy are associated with infant mortality, low birth weight and premature babies. According to Dr. Claude Burnett, Health Director, Northeast Health District, Athens, Georgia, low birth weight in infants is the leading cause of infant mortality. He goes further to say that babies born to very young mothers have twice the risk of dying in their first year compared to babies born of older mothers. According to Makinson (1985) as well, teenage mothers are more likely than older mothers to have a low birth weight baby (less than 2500 grams or the equivalent to 5.5 lbs.). According to data held at the Northeast Health District approximately 12% of infant deaths for the last 10 years have been to teenage mothers 17 years old and younger.

Prevention of Pregnancy Though Family Planning

Prevention of unintended pregnancy among teenagers is a major goal of public health family planning programs. Thus, public health family planning clinics make available contraception services for this purpose. The

public health family planning program in Georgia espouses that every pregnancy should be planned and every pregnancy wanted. Family planning clinics are located in approximately 80% of the counties in the United States (Freeman, Reckles, Mudd and Huggins, 1982).

The concept of family planning has been a domestic concern since the 1960s. However, it was not until the late 1960s and early 1970s that federal support expanded the availability of family planning services through a network of family planning clinics (Chamie, Eisen, Forrest, Orr and Torres, 1982 and (NFPRHA) National Family Planning and Reproductive Health Association, 1990). In 1967 an amendment to the Social Security Act made funds available to financially support family planning services to every woman in the United States (NFPRHA). Also, passage of Title X of the Public Health Service Act in 1970 helped increase access to family planning services at public health clinics in local communities in an effort to reduce unintended pregnancy, (Dryfoos, 1988).

According to NFPRHA, approximately 3.5 million low income women and 1.5 million teenagers receive services from Title X sponsored clinics each year. Public health family planning programs generally provide an array of services to teenagers which include physical health assessments, contraceptives, PAP smears, and reproductive health education counseling. The types of contraceptives generally available at family planning clinics for teenagers are condoms, foams, sponges, diaphragms, and birth control pills (i.e., oral contraceptives). However, abstinence is encouraged and is considered the most effective method for prevention of pregnancy and sexually transmitted diseases.

Legislation was passed in Georgia in 1971 to allow teenagers confidential access to family planning services, meaning, in essence, that parental consent is not required for them to enroll for family planning services and obtain contraceptives (Official Codes of Georgia Annotated, Title 31-9-2). Parental involvement is encouraged when feasible. In fact, Chamie, Eisen, Forrest, Orr, and Torres (1982) reported that 75 percent of 124 family planning clinics in 37 counties which were included in a national survey indicated that they encouraged parental involvement for teenagers enrolled for services.

Teenage enrollment for family planning services and their subsequent contraceptive use have not kept pace with their sexual activity. Some studies show that teenagers may wait up to one year after onset of sexual activity before initiating enrollment at family planning clinics for contraception services (Mosher and Horn, 1988). In fact, according to Mosher and Horn, who analyzed data from the 1982 National Survey of Family Growth, most females use their first family planning visit just to learn about contraception. Zabin and Clark (1983) surveyed 1,243 teenagers enrolled at 31 family planning clinics and reported that approximately 36 percent indicated that they made their first family planning visit due to a pregnancy scare, and then later decided to adopt a method of contraception when pregnancy testing results proved negative. Zabin and Clark along with Mosher and Horn indicated that only about 14 to 17 percent of teenagers make an initial visit for family planning services prior to intercourse. Review of available data from the Northeast Health District, indicated that 78 percent of teenagers, 10-19 years, who became pregnant and gave birth between 1980 and 1987 had never enrolled for family planning services.

Health Services Compliance and Noncompliance

Compliance in health settings has been defined as the extent to which individuals adhere to a prescribed medical regimen (Haynes, Taylor, and Sackett, 1979). Generally, a prescribed medical regimen consists of two important components: (1) taking the medication as prescribed by the health provider and (2) keeping scheduled return visits with the health provider for follow-up care. The underlying assumption in prescribing a medical regimen is that if followed correctly, it will benefit the patient from either a treatment or preventive perspective (Haynes et al). Noncompliance with a medical regimen is likely to negatively impact personal health (Haynes et al). Rates of noncompliance across health or medical conditions vary. For example, some studies on hypertension have indicated compliance rates at about 25 percent (Meyers, Thackway and Johnson, 1983). Borguyne, Acosta and Yamamota (1983) reported a 49% compliance rate among psychiatric patients. Cromer, Chacho, and Phillips (1987) reported a similar compliance rate of 47% among patients with sexually transmitted diseases.

Research regarding compliance at family planning clinics has generated a multiplicity of findings. However, most of the studies in this area have concentrated on teenage contraceptive use and not teenage return visit compliance behavior at family planning clinics after a method of contraception has been adopted.

Contraceptive use is defined here as taking or using a method of birth control as prescribed by the family planning provider. Contraceptive use among teenagers tends to vary with race, age and income, with poor, young and black females identified as the least consistent users (Silverman, Torres

and Forrest, 1987). According to Zelnik and Kantner (1980), 24 percent of white sexually active females, 15-19 years old, said they never used contraception while in comparison 40 percent of black sexually active females in the same age category said they never used contraception. Those researchers further reported that 35 percent of white teenagers and 31 percent of black teenagers said they always used contraception. Kulig (1985) reported similar findings among unmarried sexually females, 15 to 19 years old, with 34 percent reported always using contraception and 29 percent never using contraception. An earlier study by Furstenberg, Jr., Shea, Allison, Herceg-Baron, and Webb (1983) reported that as much as one-half of sexually active teenagers fail to use contraceptives or use them on a consistent basis. Additionally, recent data show that although black females are least inconsistent in their contraceptive use, they are more likely to adopt a more effective method of contraception, such as birth control pills (Mosher and Pratt, 1990).

Teenage compliance with any type of appointment for medical and health services has generally been stereotyped as poor (Irwin, Millstein and Brunstetter-Shafer, 1981). But, at family planning clinics, the issue of return visit compliance after adoption of a contraceptive method is increasingly a problem. According to Zelnik and Kantner (1979) who reported findings from two National Probability Household Sample Surveys (1971 and 1976) of females 15-19 years old, as many as 50 percent of family planners discontinue clinic attendance within one year of their enrollment. Balasonne also reported from her study that 50 percent of teenage family planners failed to keep their scheduled return visit for follow-up care. Moreover, other studies have shown that only one out of three teenagers, 15 to 19 years old, who enrolled for family

planning services and left the clinic with a contraceptive method, reported using it or any other type during subsequent episodes of sexual intercourse (Kulig, 1985 and Mosher and Horn). Other data also indicate that less than two-thirds of teenagers who enrolled for family planning services and generally less than one-half of them consistently used contraception during sexual intercourse (Zelnik and Kantner, 1979 and 1980). The overall problem of low return clinic visit compliance is considered contributory to inconsistent contraceptive use and potentially unintended pregnancy (Zelnik and Kantner, 1979 and 1980, and Jay, Durant, Shoffitt, Linden and Litt, 1984).

Factors Contributing to Return Visit Compliance and Noncompliance

Health Perceptions

Perceived Feelings of Susceptibility. Teenagers appear willing to engage in activities which make them vulnerable to circumstances which could potentially harm them. (Cyetkrovich and Grote, 1981, and Kisker, 1985). For example, many studies which have reported on teenage contraceptive use have indicated that inconsistent contraceptive use is related to an individual's feelings as to the risk for becoming pregnant. Herold has noted that it is important to have feelings of susceptibility, especially towards pregnancy, because lack of them can lead to risk-taking behavior, such as engaging in unprotected sexual intercourse. According to Whitley and Schofield, approximately 40 percent of twelve of the 134 studies they examined cited unplanned intercourse as a reason for non-use of contraceptives. Cyetkrovich and Grote reported findings from a 1976 national survey which indicated that fifty percent of the teenagers in the study thought that they could not become

pregnant because they were too young. Kisker also stated that some teenagers may feel in an unrealistic sense that their chances of becoming pregnant are diminished due to the infrequency of the sexual act and therefore see no reason to remain consistent in their contraceptive practices. Trussell (1988) and Smith, Nenney, Weinman and Munford (1882) also reported that teenagers seem unable to fully comprehend the risks which might result from inconsistent contraceptive practices. Smith et al., stated that some sexually active teenagers operate from the personal fable syndrome: the feeling that pregnancy occurs to other teenagers, but not to them. Findings from Smith's et al., indicated that most of the 104 first time pregnant teenagers whom they interviewed were surprised by their impregnation even though contraception had not been regularly practiced during sexual intercourse.

Feelings About the Severity of Outcome. Herold has described perceived severity as a relative phenomena and is dependent upon how serious the health condition or health threat is viewed by the individual. That is, the more serious a health condition is viewed, the more likely one is to take steps toward its prevention. Both positive and negative feelings may exist when measuring attitudes towards pregnancy. In this instance, some teenage family planners might not perceive the condition of pregnancy as a serious outcome of inconsistent contraceptive use because they want to become pregnant and have a baby, while others feel the opposite (Chilman, 1979, and Abrahamse, Morrison and Waite, 1988). Kalmuss, Lawton, and Namerow (1987) reported findings from their investigation of attitudes about pregnancy of 425 teenagers in New York City and found that over one-half of them perceived pregnancy as being a disadvantage because: (1) of the costs attached, (2) it

involved a lot of hard work, and more so, (3) because pregnancy would interfere with life plans, such as completing high school.

Pregnancy might also falsely confirm feelings of womanhood for some teenagers. While studies report that most teenage pregnancies are unintended, Chilman (1979) has stated that some teenagers might place a high value on their ability to conceive and would not mind if conception occurred. According to findings from the High School and Beyond panel study, which included over 13,000 high school sophomores, approximately 41 percent of blacks, 20 percent of Hispanics and 23 percent of whites said they either would have a child or would consider having a child outside of marriage prior to completing high school (Abrahamse, Morrison and Waite, 1988). Kalmuss et al., reported that over 50 percent of teenagers in their study cited three major advantages for becoming pregnant, and those were: (1) having a baby is to bring a new life into the world (64%), (2) having a baby would give them someone to love (63%) and (3) having a baby would give them something of their own (59%).

Further, some teenagers might not perceive pregnancy as a severe outcome of their inconsistent contraceptive use because of feelings for sexual partners. DeAmicis, Hess and McAnarney (1981) found that pregnancy among teenagers in their study resulted from extended and seriously perceived relationships with sexual partners. They reported additionally, that such relationships tended to extend after the birth of the babies. Scott (1983) found that hope for future marriage with sexual partners was associated with premarital pregnancy among 123 school-age mothers. He felt that teenagers often put themselves at risk for pregnancy by failing to practice adequate contraception due to an unconscious desire to make the relationship with the

sexual partner more permanent. Kisker (1985) analyzed discussion content about contraceptive use from teenagers who participated in 10 focus groups held in 5 United States cities. She found that the significant reasons which teenagers gave for non contraceptive use were "fear of losing the guy", "fear of appearing immature by refusing unprotected sex", and "fear that the use of a contraceptive method would lessen their sexual partner's sexual desires and fulfillment.

Feelings About the Benefits of Contraceptive Use. Individuals generally weigh the benefits of taking any action against prevention of a health condition or health threat. Although beyond the specific scope of this study, Condelli's findings suggested a need to determine types of benefits because these have not been empirically defined.

Studies have shown that some teenagers see the benefit of contraceptive use because they believe that contraception works to help prevent an unwanted pregnancy, while others do not. Approximately, 90 percent of the respondents in Kalmuss's study perceived prevention of pregnancy as a benefit of contraceptive use. On the other hand, 51.5 of respondents in their study perceived a disadvantage to birth control use because they felt that birth control methods do not always work in preventing pregnancy.

Other studies have reported that teenagers who adopt a contraceptive method to prevent unwanted pregnancy must be motivated to use the contraceptive method for that purpose. Litt, Clusky and Rudd (1980) stated that passive acceptance of a contraceptive method could lead to noncompliance. Namerow, Philliber and Hughes (1983) investigated the reasons why teenage family planners failed to keep their scheduled clinic revisit and found that 18

percent of them said that they simply forgot the appointment had been scheduled.

Contraceptive practice requires time and commitment from the individual, because essentially it is an investment in the sexually active teenager's future if she feels that an early pregnancy could hinder educational goals. Studies by Furstenberg, Shea, Allison, Herceg-Baron and Webb (1983) and Emans, Grace, Woods, Smith, Klein, and Merola (1987) show findings which indicate that teenagers who are compliant with their contraceptive regimen tend to have college and career goals, while teenagers who are noncompliant tend not to have them.

Disincentives to regular and effective contraceptive use, such as low socioeconomic status exist for some teenagers and may function to hinder their motivation to visualize positive life options, even if they obtain good grades and complete high school (Hogan, Astone and Kitagawa, 1985; and Children's Defense Fund, 1986). For example, Ireson (1984) studied the aspirations of teenagers enrolled for services at family planning clinics and found that pregnant teenagers have lower aspirations, lower grades in school, and lower socioeconomic status compared to teenagers seeking birth control methods to prevent pregnancy. Ireson concluded that teenagers who become pregnant are those who feel that they have less to lose by becoming pregnant since career goals might seem unattainable and educational opportunities perceived as relatively low. Simply, teenagers from low socioeconomic families might not see too much advantage in delaying conception and parenthood by effectively practicing contraception because they might feel that their life scripts have already been written by virtue of their background

status (Nathanson and Becker; Hogan, Astone, and Kitagawa, 1985, Children's Defense Fund, 1986).

Perceived Barriers to Services. Some features of the clinic have been found to be related to compliance and noncompliance. Kisker (1984) reported from her analysis of data from a survey conducted by the Guttmacher Institute in 1981 that some family planners stated that they did not return for services "due to the long waiting periods for service" and "that at each visit they were not attended to by the same medical provider". Radecki and Bernstein (1990) identified feelings regarding side effects from the contraceptive method as a possible barrier. Additionally, Silverman, Torres and Forrest (1987) reported that "fear of side effects", "a belief that personalized care is not offered" and "that a lower quality of care is received than would be at a private physicians office" were given by teenagers in their study as reasons for not returning to family planning clinics for services. Furthermore, Silverman et al., indicated that eighty to ninety percent of the females in their study said that their decision to use a family planning clinic for contraceptive services was influenced by "the staff spending time explaining" and "has the same clinician". From their study of family planning clinics located in 11 metropolitan and 28 non-metropolitan counties, Chamie, Eisen, Forrest, Orr and Torres (1982) found that those clinics which did not have a formal appointment schedule and those which offered free services were much more able to retain teenagers for continuing services as compared to those clinics without such features. The major complaint identified in that particular study was the "long wait for services". Inconvenient clinic hours (Chamie et. al., and Kisker) has also been given as a barrier to services.

Social Influences

Parental Involvement. Families are natural domains for investigating correlates of contraceptive practices because it is generally assumed that within this structure the expectations for behavior are developed and encouraged (Fox, 1980). Blackwell (1976) has stated that the supervisory role of the parent or the spouse is important and has been a consistent finding in ensuring that medical regimens are followed. Blackwell referred to this influence as "social supervision". The involvement of parents in sex related issues confronting teenage children may have merit, and supported in a study by Shah and Zelnik (1981). Those researchers examined the attitudes of teenagers, 15-19 years old, and found that those who were influenced by parental attitudes towards premarital sex were less likely to have had a premarital pregnancy. Newcomer and Udry (1985) and Casper (1990) found that family discussion about birth control with teenage family planners helped influenced children's contraceptive use.

However, the issue of parental involvement does not appear to be completely settled in terms of the influence it has on teenage contraceptive practices. Aldous (1983) reported that parents and teenagers alike take stances about birth control information sharing as if there is no need for discussion because the teenager is not likely to become involved in sexual activity. For example, Herceg-Baron et al., reported that although teenage family planners from their study regarded their mothers as potential sources of support around sex related issues, they were not responsive in bringing a mother or father along with them to family support sessions designed to reinforce contraceptive use. Moreover, the researchers indicated that those teenagers who did attend family support sessions were more likely to have reported that

their mothers had not known about their visit for family planning services. Emans and Grace (1982) interviewed 104 oral contraceptors between the ages of 14 and 25 years old and found that noncompliance was associated with lack of parental involvement with the family planning clinic visit. Emans et al., reported "mother's unawareness of oral contraceptive use" associated with oral contraceptive compliance. Litt, Clusky and Rudd (1980) reported from their study that teenagers who were not accompanied for the family planning visit by their parents were more likely to exhibit compliance more so than those teenagers whose parents or physicians made the appointments for service and/or when the parent arrived at the clinic with the teenager for receipt of services.

Mothers more so than fathers seem to have been included in studies which have examined parental influences related to sex related issues and the contraceptive behavior of daughters. The influence of mothers in transmitting sexual information to daughters is believed to be effective (Fox, and Inazu, 1980).

Peer Influence. Peers influence sexual behavior and contraceptive use. Shah and Zelnik found in their study of over 2000 females, 15 to 19 years old, that sexual practices and opinions about premarital sex among teenagers were similar. Patten (1981) supported that finding as shown from her investigation of 37 pregnant teenagers in Nashville, Tennessee. Out of that group, 76 percent reported that premarital sex was common among their friends. Moreover, Scott (1983) indicated that 50 percent of teenage sexual activity is potentially motivated by peer influence. Additionally, Scott reported that 16 percent of black subjects and 21 percent of white subjects in this study specifically gave peer pressure as a reason for initiating sexual

activity. The remaining gave "love" as a reason. Scott viewed love as a form of peer pressure if teenagers felt obligated to engage in sexual activity just to please their partners.

Further, much of the information (or misinformation) that teenagers have about contraception and contraceptive use come from friends (Durant et al., and Shah and Zelnik). According to those researchers, teenagers who are more influenced by peers than parents are more likely to become pregnant and exhibit non contraceptive use. According to findings from the study by Shah and Zelnik, clear patterns about peer influence and contraceptive use and premarital sex do not emerge about blacks as they do for whites. Those researchers indicated that among whites in their study a higher proportion who ever used contraception had views about premarital sex and contraception similar to friends. Moreover, a significantly higher proportion of whites (73% versus 53%) who had views similar to friends never or sometimes used contraception as compared to those with views similar to parents. Durant et al., on the other hand, indicated that a majority of the subjects reported their sexual partners encouraged contraceptive use and that only a small number of peers or partners encouraged pregnancy. However, Silverman et al., reported that 11 percent of the teenagers in their study stated that they did not use contraceptives because contraceptive use was not acceptable to their partners.

Demographic Characteristics

Some demographic characteristics have been found to be related to compliance among teenagers. Irwin, Millstein and Brunstetter-Shafer (1981) investigated the relationship of demographic characteristics to appointment-

keeping within a pediatric ambulatory clinic, and found that younger age teenagers, under 15 years old, kept scheduled appointments at a 63.6 return rate, while teenagers over 15 years old exhibited approximately a 48 percent return rate. Scher, Emans and Grace (1982) interviewed 101 oral contraceptors, 14 to 25 years old, and determined that noncompliance at a family planning clinic was most likely prevalent among teenagers who initiated contraceptive use at 15 to 16 years of age. On the other hand, Litt, Clusky and Rudd (1980) did not report age or race as significant factors in explaining differences in compliance. Balasonne reported as well from her study that no significant differences in the ages or races existed between teenage family planners who made scheduled return clinic visits from those teenagers who did not. However, Emans, Grace, Woods, Smith, Klein and Merola (1987) found that teenagers in their study who were more likely to be compliant with an oral contraceptive program tended to be older than 15 years old, white, in school, and resided in the home with married parents.

Health History Characteristics

Some studies have indicated the importance of the reproductive health history in relation to compliance in a contraceptive program. According to Emans et al., teenagers in their study who were more compliant with their contraceptive program were also more likely to have had a history of contraceptive use and a prior pregnancy. Litt, Clusky and Rudd found that teenagers who were sexually active more than twice a week were more likely to be compliant with their contraceptive practice. On the other hand, Durant et al., found among their group of teenagers that those who had sexual intercourse more than once a week had higher noncompliance. Additionally,

they reported that teenagers with multiple sexual partners also experienced higher noncompliance. Balasonne reported that teenagers involved in her study who started sexual activity at earlier ages, those who waited the longest between the onset of sexual activity and enrollment for contraceptive services, those with a sexually transmitted disease; and those who had been given only one cycle of birth control pills and advised to seek additional medical tests before the next scheduled visit were less likely to return for scheduled revisits for follow-up care. According to Sonenstein, Pleck and Ku (1989), rates of sexually transmitted diseases are higher among sexually active teenagers than adults (Guinan, 1986). At the study site, teenagers, under 18 years old, account for 13 to 15 percent of all gonorrhea and syphilis cases.

Cues to Action

One of the basic components of health services is continuity of care among the users of services. Also, once an individual enrolls for a specific service, providers feel some obligation to help promote compliance with recommended health plans. Regular compliance with the recommended plan contributes to prevention of further problems. At family planning clinics, compliance with the recommended health plan includes the expectation that scheduled revisits will be kept. The effectiveness of family planning clinics is measured in part by whether family planners keep scheduled revisits. Therefore, an important component of a family planning clinic is to have in place measures or cues to help promote visit compliance (Namerow, Philliber and Hughes).

Interventions developed to promote return visit compliance and decrease noncompliance have been numerous and diverse (Meyers, Thackway

and Johnson, 1983). Many have been in the form of communication reminders and health education campaigns. According to Haynes, Taylor and Sackett, (1979), Namerow et al., and Herceg-Baron et al., some individuals may require follow-up communication and motivation from the agency to help them comply with prescribed medical regimens, such as keeping scheduled clinic revisits. Communication between the health care provider and the patient about compliance is extremely important (Haynes, Taylor and Sackett (1979). Mass media campaigns, fixed content health messages, individual and group patient education, counseling plus written instructions, mailed letters/postcards, telephone calls, home visits, rewards/incentives, continuous and comprehensive care, and free medication provided at the clinic site have been proposed as strategies to inform and motivate return visit compliance. In the following discussion, emphasis is being placed on mail and telephone follow-up strategies.

Mail Follow-up. Nazarian, Mechaber, Charney and Coulter (1974), examined whether mailed reminders were useful in helping to encourage six hundred and seventy individuals enrolled in a multi-specialty health center to keep their scheduled return appointments. Some of the reminders included a brief message for the patients. Subjects were assigned to one of three groups after receiving a date and time for the return visit. One group served as a control and was not sent a mailed reminder. A second group was designated to receive a mailed reminder with the date and time of the scheduled visit. The third group received a card with the date, time, doctor or nurse provider and the reason for the significance of visit. Reminders were mailed one week prior to the appointment. Results reported from that study indicated that 64 percent of the subjects who were mailed a reminder returned for their clinic

visit, while only 48 percent of subjects who were not mailed a reminder returned to their scheduled clinic visit. These researchers felt that the content of the message did not produce a significant difference in the return rates among the subjects included in this study.

Telephone Follow-up. Turner and Vernon (1976) studied the effects of a standardized phone message made shortly before mental health patients were scheduled to keep their clinic appointments. They reported that the appointment failure rate decreased from 32 percent to 14 percent among the patients who received the telephone reminder.

Borguyne, Acosta and Yamamota (1983) also examined whether the effects of telephone follow-up helped to increase attendance at an outpatient psychiatric clinic. The study period lasted for 3 months, and included 690 patients. However, only 73 individuals were actually contacted but 71 percent of that group kept their appointments after being contacted. Even with such success, Borguyne, et al., concluded, however, that methods used to influence appointment-keeping need to be carefully examined before cause and effect relationships are assumed. They theorized that the appointment-keeping behavior in their study might have been more likely related to telephone ownership than to telephone follow-up. Three hundred eighteen (318) patients in their sample had no telephone and therefore were unreachable, at least, by this method. They also indicated the need for experimentation with other methods for reaching those patients without telephones. Home visits were suggested.

Cromer, Chacho and Phillips (1987) evaluated the effectiveness of telephone reminders on appointment-keeping behavior among patients less than 25 years old and who were being treated for a sexually transmitted

disease. Initial baseline intervention and repeat baseline data on 339 patients during three two-week periods were gathered. There was no overall improvement reported between initial baseline return visit percentages and post intervention phase visit percentages in this study.

Combined Follow-up Cues. Meyers, Thackway and Johnson (1983) examined four strategies (postcard, telephone call, home visit and a combination of the three methods) which were used for contacting hypertensive patients for the purpose of reminding them to keep their clinic appointments. The study was conducted in Memphis, Tennessee with one hundred-forty subjects involved. These researchers found that a combination strategy involving mail, telephone and home visit resulted in the highest rate of return clinic visits. They also suggested that providers use personal and repeated contact in order to promote compliance. Telephone contact was deemed the least expensive of the follow-up methods, but not as effective as a home visit. Mailed reminders were reported as the least effective.

Namerow, Philliber and Hughes (1983) reported findings from evaluation of a follow-up system designed for teenagers attending a hospital based contraceptive clinic in New York City. The follow-up system allowed for teenagers to suggest the ways through which contact could occur. The options identified were mail and telephone. Teenagers were scheduled for three month intervals between clinic visits for contraceptive supply refills. Clinic staff emphasized the importance of keeping scheduled revisits during patient education. Appointments were scheduled during the day, but at the convenience of the teenager. Teenagers were contacted two weeks after the missed visit.

The study lasted for six months, and during that period of time, 332 teenagers reportedly missed their scheduled revisits. Approximately 210 teenagers were followed up by telephone. The remaining 122 teenagers could not be reached by telephone or mail. Most of the subjects who were reached required no more than two follow-up telephone calls in order for them to return to the clinic for services. Mail was reported as an ineffective method for reaching teenagers. Namerow, et al., further reported that there did not appear to be any significant background differences among the subjects. However, there were more successful contacts reported among young women who had 10 years or more of education. There was also more success in contacting whites than blacks and Hispanic teenagers. Approximately 40 percent of the patients who were contacted returned to the clinic after receiving follow-up services. The highest return rate was among birth control pill users.

Herceg-Baron, Furstenberg, Shea and Harris (1986) evaluated the influence of family support and periodic telephone calls upon teenage family planners' ability to practice contraception and avoid pregnancy. They included in their study 417 teenagers who had enrolled for services in agencies under the umbrella of the Family Planning Council in southeastern Pennsylvania, and who agreed to receive follow-up services. Approximately one-half of the subjects were black. The teenagers were randomly assigned to four study groups: family support, periodic support and two controls. Out of 102 teenagers who were assigned to the family support group, only 37 actually received those services. Family support meant that teenagers would bring a family member to a series of six weekly counseling sessions. The aim was to involve another person who could help influence and support the adolescent

in her family planning practice. Herceg-Baron, et al., reported very little if any success with provision of this type of activity. These researchers indicated that the lack of success in trying to involve family members stemmed from the fact that the subjects failed to bring a family member to scheduled counseling sessions. The teenagers tended to attend the sessions alone, and in only two cases did anyone bring their parents.

There were 75 teenagers assigned to receive periodic telephone follow-up. However, 63 teenagers actually received telephone follow-up. The researchers reported greater success with telephone follow-up than family support in that 84 percent of the subjects were reached by telephone and 90 percent of them were at home. They also reported that teenagers who were followed-up by telephone were more likely to have delayed returning to the clinic for their revisits because they may have viewed the telephone contact as a substitute, rather than a motivation to return for clinic services. It should be noted, however, that Herceg-Baron, et al., stated in their article that telephone follow-up services were not designed to remind the teenagers about the need for a return visit. In fact, they said no mention was made of the need for a return visit during follow-up activity. It is possible that teenage family planners in that study might have very well misinterpreted the intentions of the telephone call. They might not have been able to grasp from a discussion about their contraception practice, when indeed, what was really expected of them was a return clinic visit.

Conceptual Framework

The Original Health Belief Model

The conceptual framework for investigating factors which describe return visit compliance and noncompliance among teenage family planners was derived form the original Health Belief Model (Becker, Maimian, Kirscht, Haefner, Drachman, and Taylor, 1979) and reproductive health history factors selected from the literature review. Interpretations of the Health Belief Model and applied to the present research primarily come from Nathanson and Becker (1983), Herold (1983), Condelli (1986) and Lowe and Radius (1987).

According to Nathanson and Becker, the Health Belief Model was developed during the 1950s by a group of social psychologists employed by the United States Public Health Service. Their purpose was to design a theoretical framework for explaining the likelihood of an individual following through on a recommended health plan to prevent occurrence of a disease or health condition. The Health Belief Model emphasizes the decision-making concepts of value or attractiveness of the goal to the individual and the feelings that the individual has about their chances of reaching the goal. Goals as espoused by this model are said to be either positively valued or negatively valued. It proposes that several factors influence whether or not a person will comply with a recommended health plan. The factors are based on the perceptions which individuals have about the health condition and the recommended plan for prevention purposes. The major components of this model are: (1) Health Perceptions, (2) Social Influences, (3) Demographics, and (4) Cues to Action. Health perceptions are said to be based upon the individual's (a) perceived feeling of susceptibility about the health condition or health threat, (b)

perceived feelings about the severity of the impact of the outcome from the health condition or health threat, (c) perceived feelings about the potential benefits and costs in preventing the condition, and (d) the various perceived barriers which can inhibit health care behavior. Social influences and demographic factors are felt to modify health perceptions, and are not considered directly casual to compliance. The "cues to action" are the stimuli used to reinforce and promote a particular health behavior of action.

There are two types of cues: internal and external. Internal cues may arise from within the individual and external cues come from others. For example, an internal cue might be expressed as a teenager's fear of pregnancy due to a missed menstrual period because of missed contraceptive use. This kind of internal cue might help sensitize teenagers to the potential for becoming pregnant due to inconsistent contraceptive use and reinforces the need for consistency in using the prescribed contraceptive. External cues may come from social influences, such as peers, parents or sexual partner in the form of either reinforcement for contraceptive use or discouragement not to use contraceptives. Further, Becker et al., and Haynes reported that external cues can exist in the form of behavioral stimuli, such as follow-up mailed letters and telephone calls from staff at the family planning clinic for the purpose of reminding teenagers about the importance of keeping scheduled return visits for continued contraceptive care.

Reportedly, the health belief model is one of the longest lasting theoretical constructs and has been most widely used with regards to research on preventive health behaviors and actions. However, it has been applied minimally to research about contraceptive use and return visit compliance

among teenage family planners (Nathanson and Becker, Herold, Condelli, and Lowe and Radius).

Any health condition can be inserted into the Health Belief Model. Therefore, since inception, it has been adapted to assess compliance around a wide variety of health conditions, to include juvenile obesity (Becker, Maimian, Kirscht, Haefner, Drachman, 1979), asthma (Smith, Ley, Seale and Shaw, 1987), medication compliance among psychiatric patients (Kelly, Mamon and Scott, 1987), and AIDS education needs of adolescents (Petosa and Wessigner, 1990).

Nathanson and Becker and Herold developed theoretical frameworks based on the Health Belief for research in the area of family planning and teenage contraceptive practice. Condelli used the "Health Perceptions" component of the model to investigate social and attitudinal determinants of contraceptive choice among female family planners ranging in ages from 13 to 45 years old. He hypothesized and found support in predicting that contraceptive choice was based on health perceptions. Specifically, Condelli indicated that convenience of the contraceptive method, concern about side effects, and feelings about how effective contraceptives are in preventing pregnancy were the most important variables to influence a female's choice in selecting a contraceptive method. Lowe and Radius also used the component "Health Perceptions" in order to develop and test a comprehensive theoretical framework for investigating teenage contraceptive practice. They found "perceived barriers to services" as the most useful dimension of that variable for explaining contraceptive use. The remaining components of the Health Belief Model have not been specifically identified as such in other studies about teenage contraceptive practices.

Proposed Model for Evaluation

The proposed model for evaluation included the four major components of the original Health Belief Model: health perceptions, social influences, demographics, and cues to action.

In addition to the above components, the following reproductive health history characteristics were incorporated into the conceptual framework: (1) need for additional tests prior to receiving contraceptive supply refills at the next scheduled return visit, (2) presence of a sexually transmitted disease, (3) age at onset of sexual activity (Balasonne), (4) prior abortion (Durant, Jay, Linden, Shoffitt and Litt, 1984), (5) prior pregnancy (Emans et al.), (6) contraceptive usage, (7) age of menarche and (8) already a parent..

Operationalization of Variables

Independent Variables

In this study, the independent variables are health perceptions, social influences, cues to action, demographic and health history characteristics.

Health perceptions are categorized into four components: perceived susceptibility, perceived severity, perceived benefits and barriers to service. Perceived susceptibility means the feelings teenage family planners have about their risk for becoming pregnant and manifested in such feelings as "fear of pregnancy", "too young to become pregnant", "intercourse was not planned", "didn't think of using birth control", "frequency of intercourse". and "didn't think would get pregnant". Perceived severity means whether or not the teenager viewed pregnancy as a severe consequence of sexual activity and whether or not she wanted to become pregnant prior to finishing high

school. Perceived benefits means the teenager felt it necessary to pick up her supply of birth control, whether or not she always used her method of birth control, the feelings she expressed as to the effectiveness of the birth control method in preventing pregnancy and the reasons given for keeping scheduled return clinic visits. Barriers to service means the negative feelings about contraceptive use and the features of the family planning clinic which manifested as reasons for having kept or failed to keep scheduled return visits.

Inclusion of health perceptions as a variable was to determine the types of health perceptions teenage family planners have about compliance and noncompliance and to identify the differences which existed between the two groups.

Social influences are defined as whether or not the teenager felt the parent or partner objected to her birth control use or reminded her about the return visit. Inclusion of this variable was to determine if teenagers' parent(s) and/or partner provided support or non-support for birth control use. Inclusion of whether or not the parent and/or partner had reminded the teenager about the scheduled return visit was to determine whether or not there had been this type of support for the teenager's participation in a family planning program.

Cues to action are defined as follow-up mailed letters and telephone calls and also whether or not the parent or partner reminded the teenager that the scheduled return visit had become due. Inclusion of follow-up mailed letters and telephone calls was to determine whether or not those teenagers who had received a reminder(s) kept the scheduled return visit. They were also included to determine teenagers' perception as to whether or not follow-up

reminders from the family planning clinic would be helpful in promoting return visit compliance.

Health characteristics are defined as contraceptive use, age of first sexual intercourse, age of menarche, whether or not the teenager had been referred by the family planning clinic for additional medical tests, whether or not the teenager already had children, whether or not there had been a prior pregnancy, whether or not the teenager had ever had a sexually transmitted disease and whether the teenager was born as a result of an earlier teenage pregnancy. Health characteristics were used to reflect and describe teenage family planners' reproductive health history.

Demographic characteristics are defined as whether or not the teenager was enrolled in school, plans for finishing high school, age, living arrangements, parent(s) educational background, and whether or not teenagers' families received public assistance. These factors were used for describing teenage family planners who were either compliant or noncompliant with the scheduled return visit.

Dependent Variable

The dependent variable is whether the teenage family planner returned or failed to return to the family planning clinic for continued contraceptive care.

Summary of Literature Review

In summary, teenage sexual activity has increased, but contraceptive use has not kept pace with the rise in that type of activity. Inconsistent or

non-use of contraceptives among sexually active teenagers reportedly contributes to pregnancy. Serious social, economic and health consequences result from early childbearing for most teenagers. In recent years, graduation from high school seems to have become more prevalent among teenage mothers.

Enrollment for family planning services and consistent contraceptive use help to prevent unwanted pregnancy. However, some teenagers who enroll for family planning services may do so because of a pregnancy scare or just to learn about contraception. Significantly, approximately 50 percent of teenagers who enroll for family planning services fail to keep scheduled return clinic visits for follow-up care after adoption of a contraceptive method and thus risk exposure to pregnancy. The effectiveness of family planning clinics regarding prevention of unintended pregnancy is measured in part by whether or not scheduled return clinic visits are made for continued contraceptive services.

The availability of family planning clinics and related contraceptive services alone do not appear sufficient enough to ensure return visit compliance. It has been proposed that compliance is influenced by health perceptions, social influences, demographic and health factors and through provision of "cues to action". Health perceptions may also present as reasons for return visit compliance and return visit noncompliance. Demographic factors have not been found to be significant in predicting visit compliance in either direction, but have been helpful in describing family planners who report using and not using contraceptives on a consistent basis. Some factors which can be found in the teenage family planner's reproductive health history have been associated with return visit noncompliance.

Much of the research reviewed on teenage contraceptive behaviors have focused on describing the characteristics of teenagers who use and do not use contraceptives. Few studies were found in the literature which reported about either return visit compliance or noncompliance. The general conclusion found from the literature review is that knowledge about visit compliance is as important as knowledge about contraceptive use. The availability of both types of information is expected to help enhance the understanding of the full range of teenage contraceptive behaviors.

Concern about the lack of theory-based research focusing on the contraceptive behaviors of teenagers was also evident from the literature search. The Health Belief Model has been recommended for deriving conceptual frameworks to examine teenage contraceptive behaviors even though limited information exists pertaining to its utility for that purpose. Very few studies could be found which actually tested the Health Belief Model in the investigation of teenage contraceptive behaviors, and those concentrated upon contraceptive use, rather than return visit compliance and noncompliance. Researchers have generally acknowledged that development of theory-based research focusing on either contraceptive use or return visit compliance should be viewed as a challenge for public health providers since this need exists.

In proposing this study's conceptual framework, the health condition was defined as unwanted pregnancy. The research aim was to evaluate whether a modified version of the Health Belief Model provided an empirical base for use in describing teenagers who kept and did not keep their scheduled return visits at selected public health family planning clinics in a southern health district.

This study assumed that any teenager who enrolled for family planning services and adopted a method of contraception was potentially compliant or noncompliant with the scheduled family planning clinic visit.

Questions

The research questions which guided this investigation and which flowed from the literature review and conceptual framework follows:

1. Do demographic variables, reproductive health history characteristics, and factors in the Health Belief Model differentiate between teenagers who keep and do not keep their scheduled return family planning clinic visits?
2. What reasons do teenagers give for keeping and failing to keep their scheduled return family planning clinic visits?

Chapter 3

Methodology

Description of Study Setting

This evaluation took place at the Northeast Health District, one of 19 public health catchment areas in the state of Georgia. The Northeast Health District provides programmatic direction for public health activities in ten county public health departments in Northeastern Georgia.

The Northeast Health District has a total population of 269,464 residents according to preliminary 1990 population projections (Georgia Vital Statistics Report, 1989). Teenagers, 10-19 years old, constitute approximately 18 percent of that number. Among the total number of teenagers (n = 49,257), approximately 28 percent are black. The socioeconomic status of the district ranges from the extremely poor to the relative affluent. Several factories, poultry farms, other businesses and one large university are present, and provide jobs for a majority of the people. Nine of the ten counties within this District are considered rural. The counties selected for this study were representative of the health district.

Data found in the 1989 Georgia County Guide show that the school drop-out rates within the ten counties have been high over the years. Public school officials indicate that pregnancy is one of the leading causes of school discontinuation among female students.

It is difficult to provide precise data on the actual number of sexually active teenagers residing within the Northeast Health District because all do

not seek services through public health settings. However, public health administrators and service providers indicate that most teenagers who come in for family planning services are already sexually active, high risk for premature pregnancy, and in need of regular contraceptive services.

Follow-up mailed letters and telephone calls are provided on-going at some health departments within the Northeast Health District, and are the major methods of follow-up used. Home visits are made occasionally. Follow-up contact is provided to ensure that once a teenager adopts a method of contraception, they will keep regularly scheduled clinic revisits for supply refills, contraception education and physical health monitoring. All teenagers within the Health District's catchment area have access to confidential family planning services without cost and without clinic appointment constraints. Services are available at any time during traditional working hours, and one evening per week for increased accessibility.

Teenagers seeking family planning services receive a comprehensive medical/physical examination and contraceptive counseling from registered nurses prior to issuance of free contraceptives for pregnancy prevention. Teenagers are also provided reinforced educational counseling during the clinic visit and at follow-up concerning the health, social and economic consequences of early sexual activity and unplanned pregnancy.

Teenage family planners are informed at each visit about follow-up services. They are asked whether follow-up is permissible. Some teenagers refuse follow-up services and subsequently do not receive them. However, the number of teenagers who do refuse these services are minimal. The usual interval between clinic visits for family planning purposes is approximately three months. Teenagers who miss scheduled return visits begin receiving

follow-up services at the end of the month during which the return visit had been scheduled. Continued follow-up is rendered only when there is no response to the follow-up contact. This means that a family planner may receive one or possibly all of the methods of follow-up dependent upon noncompliance. All follow-up activity generally takes place within a 90 day period.

Follow-up is conducted by outreach workers experienced in contacting patients who utilize health department services. They have had training on subject areas including reproductive health, the basics of interviewing, the consequences of unplanned pregnancy, adolescent development, how to help teenagers handle peer and partner pressures, and the importance of regular contraceptive practice when pregnancy is undesired.

Survey Design

A correlational contrasted group design (Nachmias and Nachmias, 1987) using a survey technique for data collection was employed in this exploratory investigation. In using this design it means that the subjects were regarded as members of a categoric group because they shared an attribute. They were all black teenage family planners who had been scheduled to make a return clinic visit at two public health departments. The teenagers were divided into two groups for comparison purposes. One group consisted of teenagers who kept their scheduled return visits for family planning services and the other group consisted of teenagers who did not keep their scheduled return visits for family planning services. The design may be symbolized in the following manner:

O_1

O_2

Legend:

O_1 = Responses of teenagers who kept scheduled return visits on the proposed model variables.

O_2 = Responses of teenagers who did not keep scheduled return visits on the proposed model variables.

Sample

The sampling frame consisted of all black teenagers, 10-17 years old, enrolled for family planning services at two public health departments within the Northeast Health District in Georgia. According to data available at the Northeast Health District, 1163 teenagers were enrolled for family planning services between December and January 1990 on a district-wide basis. However, there were approximately 400 teenagers, 17 years old and under, enrolled for family planning services at the study sites. On a district-wide basis, white and black females respectively comprised about 41 and 38 percent of the teenage family planning population during 1990. The study included only those teenagers under 18 years old because this is the age group most expected to be enrolled in school and the age where the costs and consequences of a pregnancy would appear to be more devastating. It was believed that older teenage family planners may have finished high school, enrolled in college, may have already entered the workforce, or married. Prevention of pregnancy among teenagers under 18 years old is also a priority set by the Northeast Health District. Thus, all research efforts focused on this

age group were viewed as imperative. Black teenagers were included due to the life long negative effects unintended pregnancy has had on this group. Unintended pregnancy also negatively impacts upon white teenagers and a similar study focusing on that group of family planners is planned for the future.

Subjects

Seventy-eight black adolescent females, 10 to 17 years old, who were enrolled for family planning services at the designated health department and who had been scheduled for return clinic visits were included in this study. There were 45 teenage family planners in the noncompliant group and 33 teenagers in the compliant group. Group assignment was based upon whether the subject had missed her scheduled return visit for family planning services and whether the subject kept her scheduled return visit at the clinic for family planning services. A teenage family planner was considered as having missed her scheduled return visit if she failed to return to the clinic within 30 days after the scheduled time. The potential pool of subjects at the point of data collection was 125 teenage family planners. During the two week period of data collection, seventy-eight teenagers were able to be contacted and agreed to participate by completing a questionnaire. Home visits were scheduled for an additional 8 noncompliant teenagers but they were not at home during data collection.

The data in Tables 1 and 2 more explicitly describe the two comparison groups. Data for these tables were obtained from the questionnaires. The valid percents shown on the tables take into consideration missing cases.

Table 1

Frequency Distribution for Compliant and Noncompliant Teenagers by Age

	Compliant			Noncompliant		
Age	N	%	Valid %	N	%	Valid %
12	1	3.0	3.0	2	4.4	5.1
13	1	3.0	3.0	1	2.2	2.6
14	8	24.2	24.2	4	8.9	10.3
15	4	12.1	12.1	7	15.6	17.9
16	6	18.2	18.2	7	15.6	17.9
17	13	39.4	39.4	18	40.0	46.2
Missing	--	-----	----	6	----	13.3
Total	33	100%	100%	45		100%
Mean -	15.576			15..795		
Standard Deviation -	1.458			1.454		

Table 2

Frequency Distribution for Compliant and Noncompliant Teenagers by Grade Level

Grade	Compliant N	Compliant %	Compliant Valid %	Noncompliant N	Noncompliant %	Noncompliant Valid %
12th	4	12.1	13.3	6	13.3	18.2
11th	6	18.2	20.0	3	6.7	9.1
10th	7	21.2	23.3	5	11.1	15.2
9th	7	21.2	23.3	12	26.7	36.4
8th	4	12.1	13.3	4	8.9	12.1
7th	2	6.1	6.7	2	4.4	6.1
6th & under	--	---	----	---	----	----
Missing	3	9.1	___	12	26.7	___
	--	----	----	----	----	----
Total;	33	100%	100%	45	100%	100%
Mean			3.233*		3.455	
Standard Deviation			1.455		1.603	

* = 10th grade

Table 1 shows the frequency distributions for compliant and noncompliant teenagers by age. In general, these distributions show that there were more teenagers involved in the study who were 17 years old as compared to other ages. The mean age was approximately 16 years. Approximately 13% of noncompliers failed to give their ages.

Table 2 shows the frequency distribution for grade level among the two comparison groups. The mean grade level was 10th grade. However, there was a higher percentage of noncompliant teenagers in the 9th grade compared to other sub-groups. Approximately 9% of the compliers and 27% of non-compliant teenagers failed to report their grade level.

Instruments

The questionnaires used in this study are titled "Survey Questionnaire for Teenage Family Planners, #1 and #2. Both questionnaires were used to measure the variables of interest and were developed specifically for this study. Questionnaire #1 was administered to teenagers who did not keep their scheduled return visits and Questionnaire #2 was administered to teenagers who kept their scheduled return visits. Both instruments were designed for self completion.

Methods and Procedures

The data collection techniques used in this study was a self-administered questionnaire. During the return clinic visit, a member of the data collection team approached teenagers while they were sitting in the waiting room and

informed them about the nature and purpose of the study. Teenagers were asked if they would like to hear more about the study and participate in completing a questionnaire. If the teenager said "No, she did not care to participate", there was no further effort to recruit her for participation. Teenagers were also informed that refusal to participate would not affect their continued use of family planning services. If the teenager said "Yes, she would participate in the study", the data collector escorted her to a private area, explained again about the study and gave her the form for informed consent to read and sign. After the teenager had given signed informed consent, the data collector asked her to complete Questionnaire #2. The data collector was also available to assist the teenager in completing both the form for informed consent and the questionnaire, if necessary, by reading the questions or clarifying instructions. Teenagers were informed that they could stop completing the questionnaire at any time or refuse to answer any question if so desired. They were also assured that refusal to answer questions in any form would not effect their continued use of services. Furthermore, steps were taken to ensure that teenagers who agreed to participate in the study were not delayed in receiving services because of the time spent in completing the questionnaire. All patients at the study site are routinely called for services by number and staff was instructed to inform study participants when their numbers were called. After completion of the questionnaire, teenagers were instructed to place it in a specially marked box in the room where it was completed. They were then instructed to return to the general waiting room area.

Data collection for teenagers who did not keep their scheduled return visits were through home visits. Permission to make home visits for study

participation and data collection purposes was obtained from teenagers by agency outreach workers during their routine follow-up telephone activities. The family planning clinic compiles the names, telephone numbers and addresses of teenagers who do not keep their scheduled return visits into a follow-up list. The outreach workers use that information in order to provide follow-up on teenage family planners and remind them of the status of the scheduled return visit: due or overdue. Teenagers are informed at each clinic visit that follow-up will occur and are asked to provide the desired method of contact which should be used by outreach staff for follow-up purposes. In this study, only teenagers who indicated at the last clinic visit that any method of follow-up was acceptable to them or those who gave permission for at least telephone follow-up were considered for participation in this study.

The procedures pertaining to the research project and used during routine telephone follow-up activity were as follows. During the telephone follow-up contact with the teenager, the outreach worker informed her about the nature and purpose of the study and ascertained whether she would like to participate by answering some questions contained on a questionnaire. The teenager was informed that a home visit would be necessary in order to complete the questionnaire. If the teenager said "No, she did not care to participate", the outreach worker was instructed to say "thank you and that's okay". No other effort was made to recruit the teenager for participation in the study. The outreach worker then resumed the normal intended purpose of the follow-up call.

If the teenager said "Yes, she would participate in the study", the outreach worker asked to schedule a time for a home visit so that one of the data collectors could obtain signed consent for participation and bring the

questionnaire for its completion. After obtaining a time for the home visit, the outreach worker then resumed with the normal intended purpose of the follow-up call.

The outreach workers provided the principal investigator with the names of teenagers who had missed scheduled return visits and who also agreed to participate in the study. The principal investigator developed a master list and the names were distributed back to outreach workers so that they could make the home visits, obtain the signed informed consents and administer the questionnaires,

The procedures used during the home visit were as follows. The outreach worker/data collector asked for the teenager at the home visit. If the teenager was not at home, the questionnaire was not left with anyone else and a repeat home visit was not made for study purposes. If the teenager was home, the outreach worker introduced herself, the nature of the home visit, and gave the teenager the form for informed consent so that she could read and sign it. Questions regarding informed consent were answered. After the teenager had signed the informed consent for participation, Questionnaire #1 was given to her for self-completion. The outreach worker was available to read questions and clarify as needed. The teenager was instructed to put the informed consent form and the completed questionnaire in a sealed envelope for return to the principal investigator.

Three experienced outreach workers employed by the Northeast Health District served as data collectors. A mini-workshop training session was conducted in order to train them on how to conduct face to face interviews, and how to handle subject anxiety related to the data collection process. All personnel involved in the study were experienced in working with teenage

family planners and already knowledgeable about collection of information from family planning patients, and that was considered an additional advantage overall.

Rating of Responses

In order to assess the utility of the proposed model in describing teenagers who kept and did not keep their scheduled return clinic visits, respondents were asked to respond to 80 items on questionnaire # 1 and 74 items on questionnaire #2. For purposes of statistical analysis, the data were coded as indicated on the questionnaires.

Data Analysis

The levels of measurement used in this study were nominal, ordinal and interval. The data were examined using the Chi-Square and the T-test. The Chi-Square statistic with a p. = .05 critical significance value was used to test significant differences between the two groups when data were measured at nominal and ordinal levels. The T-test, also with a p. = .05 critical significance value was used to test mean differences between groups when data were measured at the interval level. All data were analyzed using SPSS-PC.

Chapter 4

Results

Restatement of the Purposes

The first purpose of this study was to survey black teenagers who were enrolled for family planning services in a southern public health district and determine their reasons for having kept or having failed to keep scheduled return clinic visits for continued contraceptive services. The second purpose was to determine whether factors in the Health Belief Model, demographic characteristics of teenagers and aspects of teenagers reproductive health histories differentiated between teenagers who kept their scheduled return visits and those who did not.

No hypotheses were postulated for this research. However, Chi-Square and T-test were used to examine the questions. The important results from those analyses are being reported.

Demographic Characteristics

It will be noted in Table 3 that 79% of compliant teenagers reported that their mothers had some high school education or had graduated with a diploma or General Equivalency Degree (GED). In comparison, none of the noncompliant teenagers reported that their mothers had graduated from high school and only 66% indicated that their mothers had some high school education. Table 4 shows that 75% of compliant teenagers reported that their

Table 3

Comparison Between Groups on Mother's Education

Mother's Education	Compliers	Noncompliers	Total
Some High School	19 (58%)	25 (66%)	44 (62%)
Don't Know	7 (21%)	13 (34%)	20 (28%)
High Sch. Grad/GED	7 (21%)	0 (%)	7 (1%)
Total	33 (100%)	38 (100%)	71 (100%)

X^2 = 9.31225
p. = .009
df = 2
Missing cases = 7 cases

Table 4

Comparison Between Groups on Father's Education

Father's Education	Compliers	Noncompliers	Total
Some High School	19 (59%)	13 (35%)	32 (46.%)
Don't Know	8 (25%)	23 (62%)	31 (45%)
High Sch. Grad/GED	5 (16%)	1 (3%)	6 (9%)
Total	32 (100%)	37 (100%)	69 (100%)

X^2 = 10.74383
p. = .004
df = 2
Missing cases = 9

fathers had some high school education or had graduated from high school with a diploma or received a GED. In comparison only 38% of noncompliant teenagers reported that their fathers had some high school education or had graduated with a diploma or GED. Therefore, the second difference between the two groups was that parents of compliant teenagers had higher educational levels than the parents of noncompliant teenagers.

Interestingly, also, is the large percentage of both compliers and noncompliers who did not know the educational levels of either their mothers or fathers. However, overall, more noncompliant teenagers than compliant teenagers reported less knowledge in that regard. Specifically, among noncompliers, 34% reported not having any knowledge about their mothers' educational level and 62% reported the same about their fathers. In contrast, among compliers, only 21% reported not having any knowledge about their mothers' educational level and only 25% reported the same about their fathers.

As noted in Table 5, the majority (62%) of all respondents indicated that their families received public assistance. Twenty-two percent more of the families of noncompliers received public assistance than families of compliant teenagers (72% vs. 50%). Thus, a third difference between the comparison groups was that more families of noncompliers than compliers received public assistance.

Reproductive Health History Characteristics

Tables 6, 7 and 8 present comparisons of the two groups on (1) the mean age of teenagers' mothers when they were born, (2) the teenagers' history of pregnancy, and (3) the mean age when teenagers first became sexually active.

Table 5

Comparison Between Groups Receiving Public Assistance

Receive PA	Compliers	Noncompliers	Total
Yes	16 (50%)	26 (72%)	42 (62%)
No	16 (50%)	10 (28%)	26 (38%)
Total	32 (100%)	36 (100%)	68 (100%)

X^2 = 3.54253
p. = .05
df = 1
Missing cases = 10

Table 6

Comparison of Groups on Age of the Mother When Teenagers Were Born

Group	Mean	Standard Deviation	Standard Error	Total
Compliers	23.5000	6.445	1.264	26
Noncompliers	19.0667	9.127	1.666	30

F Value	2-Tail Prob.	Separate Variance Estimate t Value	Degrees of Freedom	2-Tail Prob.
2.01	.081	2.12	52.00	.039

Missing cases = 22

Table 7

Comparison of Groups on History of Pregnancy

History of Pregnancy	Compliers	Non-Compliers	Total
No	24 (75%)	19 (51%)	43 (62%)
Yes	8 (25%)	18 (49%)	26 (38%)
Total	32 (100%)	37 (100%)	69 (100%)

X^2 = 4.08669
P = .0432
df = 1
Missing cases = 9

Table 8

Comparison of Groups on Age of First Sexual Activity

Group	Mean	Standard Deviation	Standard Error	Total
Compliers	14.5000	1.285	.262	24
Noncompliers	13.3333	2.713	.554	24

F Value	2-Tail Prob.	Separate Variance Estimate t Value	Degrees of Freedom	2-Tail Prob.
4.46	.001	1.90	32.83	.066

Missing data = 30 cases

It will be noted in Table 6 that there was a significant mean difference in the ages of teenagers' mothers when they were born. Teenagers who were noncompliant were born to mothers whose mean age at delivery was 19 years old whereas teenagers in the compliant group were born to mothers who were approximately 24 years old. Table 7 presents a cross tabulation for the two groups by history of pregnancy. Among the reported cases of pregnancy (38%), noncompliers had almost twice the history of pregnancy compared to compliant teenagers (49% vs. 25%). It will be noted in Table 8 that compliant teenagers began sexual activity when they were 14 1/2 years old while noncompliant teenagers' mean age of first sexual activity was 13 years 4 months. Thus, compliant teenagers had delayed onset of sexual activity until they were on average more than a year older than compliers.

Reasons For Inconsistent or No Contraceptive Use

Table 9 presents frequency distributions comparing reasons for inconsistent or no contraceptive use among the two groups. Thirty-one respondents from the total sample (n = 78) indicated that they sometimes or never used contraceptives. Among the compliers (n = 15), the top five reasons given for inconsistent or non-use of contraceptives were "no sex now," "worry about side effects," "infrequent sex," "forget to take the contraceptive method," "unexpected sex." Among the noncompliers, the top five reasons given were "feelings that would not get pregnant," "unexpected sex," "no sex now," "forget to take the contraceptive method" and "partner objects to contraceptive use." Each respondent could choose multiple responses as reasons for inconsistent or noncontraceptive use.

Table 9

Distribution of Reasons Given For Inconsistent/No Contraceptive Use Among Groups

Reasons	N = 15 Compliers N	%	N = 16 Noncompliers N	%
No Sex	6	(40%)	7	(44%)
Forget to take	4	(27%)	6	(38%)
Won't get preg.	2	(13%)	8	(50%)
Unexpected sex	3	(20%)	8	(50%)
Infrequent sex	5	(33%)	4	(25%)
Worry about side eff	5	(33%)	2	(13%)
Partner obj. BC	0	---	5	(31%)
Partner's resp. to use	1	(7%)	4	(25%)
Too young for preg.	2	(13%)	3	(19%)
Parents obj. to BC	0	---	4	(25%)
Too much hassle	1	(7%)	2	(13%)
Desire pregnancy	0	---	3	(19%)
Wrong to use BC	0	---	2	(13%)
BC does not work	1	(7%)	1	(6%)

Missing cases = 12
Always use contraceptives = 35 cases

Reasons For Compliance and Noncompliance

There were nine possible reasons given for compliance and fifteen for noncompliance. These are reported in Tables 10 and 11. In Table 10 the most frequently cited reasons for keeping scheduled return visits were "needed more birth control," "time for the annual exam," "like clinic services," "have regular sex and do not want to become pregnant" and "hours are convenient."

In Table 11, the most frequently cited reasons for noncompliance were "at work or school at time of the scheduled return visit," "long wait for services," "still had some birth control," "forgot the visit" and "no privacy."

Follow-up Cues

Table 12 shows that approximately 58% of noncompliers and 41% of compliers indicated that they had received a follow-up mail reminder. A greater percentage (12.5% vs. 3.1%) of noncompliers had also received both a mailed letter and telephone call. Overall, approximately 77% of the noncompliers and 53% of the compliers had received one or more follow-up reminders (see also Table 13). This finding raises questions about the effectiveness of follow-up reminders in promoting return visit compliance, and it suggests that differences in compliance may reflect differences between the two groups in motivation and organization.

Table 10

Frequency Distribution of Reasons Given For Return Visit Compliance

Variable	N = 33	Given as Reason N %
Needed more BC		18 (55%)
Time for annual exam		16 (47%)
Like services		15 (45%)
Have reg. sex, don't want preg.		14 (42%)
Hours convenient		8 (25%)
Free contraceptives		7 (21%)
Needed preg. test		5 (15%)
Parents reminded me		5 (15%)
Partner reminded me		4 (12%)

Table 11

Frequency Distribution of Reasons Given For Return Visit Noncompliance

Variable	N = 45	Given as Reason N	%
Wk/sch at time appt.		16	(36%)
Long wait		12	(27%)
Still had BC		12	(27%)
Forgot Appt.		11	(24%)
No privacy		10	(22%)
Dislike vag. exam		9	(20%)
Was preg.		6	(13%)
No sex act.		6	(13%)
Partner obj. BC		5	(11%)
Dec no use		5	(11%)
Neg. side effects		4	(9%)
Parents obj BC		4	(9%)
Embarrassed		3	(7%)
Use other med. serv.		3	(7%)
Rude staff		2	(4%)
Desire preg.		2	(4%)

Table 12

Comparison Between Groups on Types of Follow-up Reminders

Type of Reminder	Percent	Valid Percent	Total N
Noncompliers:			
Mailed letter	51.1	57.5	23
Telephone Call	6.7	7.5	3
Mail and Telephone	11.1	12.5	5
None of the above	20.0	22.5	9
Missing data	11.1	----	5
Total	100%	100%	45
Compliers:			
Mailed letter	39.4	40.6	13
Telephone Call	9.1	9.4	3
Mail and Telephone	3.1	3.1	1
None of the above		46.9	15
Missing data	3.0	----	1
Total	100%	100%	33

Table 13

Cross Tabulation of Follow-up Reminder By Compliance Status

Received Follow-up Reminder	Compliers	Non-Compliers	Total
Yes	17 (53%)	31 (77%)	48 (67%)
No	15 (47%)	9 (23%)	24 (33%)
Total	32 (100%)	40 (100%)	72 (100%)

X^2 = 4.75312
p = .02
df = 1
Missing cases = 6

Summary of Findings

The findings bearing directly on the questions of this study were the following:

1. There were significant differences between the two groups on three demographic characteristics: the mothers of compliant teenagers had a higher educational level than the mothers of noncompliant teenagers, the fathers of compliant teenagers had a higher educational level than the fathers of noncompliant teenagers, and more of the families of noncompliant teenagers received some type of public assistance than the families of compliant teenagers.
2. There were significant differences between the two groups on three reproductive health history characteristics: noncompliant teenagers were younger than compliant teenagers at first sexual activity, the mothers of noncompliant teenagers were younger than the mothers of compliant teenagers at the time of the teens' births, and noncompliant teenagers were more likely to have experienced a pregnancy.
3. The top five reasons given by teenagers for keeping scheduled return clinic visits were: (a) they needed more birth control, (b) it was time for their annual exam, (c) they liked clinic services, (d) they had regular sex and did not want to become pregnant, and (e) the clinic hours are convenient.
4. The top five reasons given for failing to keep scheduled return clinic visits were: (a) they were at work/school during clinic hours, (b) they had to wait too long for services after arrival, (c) they still had

some birth control, (d) they forgot the visit had been scheduled, and (e) they believed they had no privacy at the family planning clinic. Table 14 presents a summary of the differences found between the two groups.

Table 14

Summary of Differences Between Groups

Variable	Compliers	Noncompliers
Demographics:		
Mothers' education	Higher with some HS Grad	Lower with no HS Grad
Fathers' education	Higher with more HS Grad	Lower with less HS Grad
Received Public Assistance	Less likely to receive public assistance	More likely to public assistance
Reproductive Health History:		
Mothers' age at teens' birth	Older and in adulthood	Younger and still a teenager
Teens' history of pregnancy	Lower likelihood of pregnancy	Twice as likely to have a history of pregnancy
Age of 1st sexual activity	Began a year older	Began a year younger
Follow-up:		
Follow-up cues	Received less follow-up	Received more follow-up
Reasons for Inconsistent Contraceptive Use:		
	No sex now	Feel won't get pregnant
	Worry about side effects	Unexpected sex
	Infrequent sex	Partner objects to BC use
	Forget to take/use BC method	No sex now
	Unexpected sex	Forget to take/use BC
Reasons for Compliance		**Reasons for Noncompliance**
	Needed more BC	At work/school
	Time for annual exam	Long wait for services
	Like clinic services	Still had some BC
	Have regular sex; don't want pregnancy	Forgot the visit
	Hours are convenient	No privacy

Chapter 5

Summary, Conclusions and Recommendations

Summary

Problem and Purpose

Low return visit compliance among teenagers enrolled for contraceptive services at public health family planning clinics is an area of concern for family planning professionals. The concern is raised because approximately 50 percent of sexually active teenagers who adopt a method of contraception at such clinics fail to keep scheduled return visits for follow-up care. The general consensus is that noncompliant teenagers might be at a higher risk for exposure to unintended pregnancy compared to compliant teenagers. The reasons for return visit compliance and noncompliance were unexplored at the study site prior to this research. The purpose was to explore that phenomena using a modified version of the Health Belief Model.

Background of the Study

Numerous studies in the social sciences have investigated teenage contraceptive use. Yet few studies are available about return visit compliance and noncompliance among sexually active teenage family planners. The Health Belief Model has long been used for investigating a variety of health behaviors and conditions. However, its usage has been less prominent in the

study of either teenage contraceptive use or return visit compliance and noncompliance.

This investigation approached return visit compliance and noncompliance from five view points: health perceptions, social influences, demographic characteristics, health history characteristics and follow-up cues to action. From the review of the relevant literature it was concluded that because all these variables seem to play significant roles in describing teenage contraceptive use, they may also play significant roles in describing teenage return visit compliance and noncompliance. It was also concluded that a theoretical gap existed for supporting study in this area.

Procedures

Two questionnaires were developed by the writer to assess the variables of interest. The content of both questionnaires was based on information obtained from the literature review. The questionnaires were developed because no existing instrument could be found which captured all the variables of interest to this investigator. Both questionnaires have face validity.

The subject population consisted of approximately 400 teenagers (10 - 17 years old) enrolled for public health family planning services in a southern health district. From this population, a convenience sample of 78 subjects was drawn.

Analysis of Data

The responses of the 78 subjects on the two questionnaires were analyzed using Chi-Square and the T-Test.

Limitations

One limitation of this study is its external validity. That is, the results are specific to health departments within one health district in the south. Therefore, the results should be used with caution for generalization to teenage family planners enrolled in other public health family planning programs. Also, the sample studied was not randomly selected and the research was cross-sectional. Future studies should include a longitudinal approach, using a random sample in order to offset threats to external validity.

Internal validity may also be a problem, especially those factors related to interviewers' bias and the respondents' desire to supply information they thought the interviewers were seeking. A self-administered questionnaire with anonymity was one way of trying to preserve internal validity. Providing a workshop to train interviewers on data collection procedures was another attempt for that same purpose.

The lack of pretests of the questionnaires may be considered a threat to internal validity. However, this research was exploratory in nature and considered as such when constructing the questionnaires, examining and reporting findings regarding the data. Further, the responses given by teenagers were a retrospective account of why they failed to use their contraceptive methods and failed to keep their scheduled return clinic visits for follow-up care. However, teenagers were contacted no longer than 30 days after their missed return visits, and therefore the elements of time and memory should not greatly compromise the data.

Conclusions

The following may be concluded from the findings of this study:

1. Important differences existed between compliers and noncompliers.
2. Demographic characteristics, including parents' educational level and receipt of public assistance, differed between the two groups. Teenagers whose parents had lower educational levels and who were receiving public assistance tended to exhibit noncompliance. Teenagers who exhibited compliance tended to have families with higher educational levels and were not receiving public assistance. Notably too, the noncompliers were more likely than the compliers to answer "don't know" to questions about their parents' educational levels, perhaps suggesting weaker family ties in the lives of noncompliers or lack of commitment to education.
3. Reproductive health history characteristics also differed between the teenagers who kept their scheduled return visits and those who did not. Teenagers who exhibited noncompliance were born to teenager mothers, began sexual activity early in their teenage years and were twice as likely to have experienced a pregnancy. Teenagers who exhibited compliance were born to females who had reached adulthood. They began sexual activity in their middle teen years, and were less likely to have experienced a pregnancy.
4. The reasons that teenagers gave for keeping their scheduled return visits were indicators of self-motivation, organization and self-responsibility in regard to effective family planning practice.

5. The reasons that teenagers gave for failing to keep their scheduled return clinic visits reflected lack of self-motivation, self-responsibility and organization in regard to effective family planning practice.
6. There appeared to be a gap between noncompliant teenagers' understanding of family planning practice and what they actually need to do to avoid pregnancy. Noncompliant teenagers tended to express feelings of invincibility about becoming pregnant and also tended to assign responsibility to others, such as the boy friend or the agency, for failure to follow a family planning regimen. Compliant teenagers appeared to have been more in control of their sexual behavior and recognized the need for family planning even if they had discontinued sexual activity.
7. More compliant teenagers reported less sexual activity then noncompliant teenagers when reasons were given for inconsistent contraceptive use and failure for keeping the scheduled clinic visit. Thus, full participation in a family planning program may help encourage abstinence. At the Northeast Health District, teenagers are counseled as well on the benefits of abstinence especially in light of AIDS, high rates of other sexually transmitted diseases, and unintended pregnancy. The general feeling on the part of service providers here is that just because a teenager has begun sexual activity, the choice between continuation and discontinuation exists and therefore each one should be counseled to that effect. Abstinence is considered the most effective method for preventing

contraction of sexually transmitted diseases and unwanted pregnancy.

Implications for Practice and Recommendations

Due to the exploratory nature of this study, the writer would like to recommend further study in this area over a longer period of time and with diverse samples. Although the findings from this research have provided some enhanced understanding and/or confirmed some of the knowledge we have about return visit compliance and noncompliance, there is still much more work to be done in order to successfully identify potential teenage contraceptors who will keep and fail to keep their scheduled return clinic visits for follow-up care. The problem of teenage pregnancy warrants this continued attention.

Therefore, on the basis of the findings from this study, the following recommendations for reinforcing return visit compliance and reducing noncompliance are presented:

1. Advocate to health officials at the study site the need to continue this type of research effort in order to identify factors which predispose teenagers for either return visit compliance or return visit noncompliance. After further study, the writer will assimilate the data and move toward the development of a "Family Planning Psycho-social Assessment Tool" which would be based upon significant findings. For example, the findings from this study show that noncompliant teenagers can be differentiated from compliant teenagers on several variables, including, age of first sexual activity, parent's age at the teenager's birth, and parents' educational level.

By gathering data on these variables at intake, adolescents likely to be compliant could be distinguished from adolescents at high risk of noncompliance, and intervention strategies could be planned accordingly.

2. Add a component to the health education curriculum aimed toward reinforcing return visit compliance and decreasing noncompliance. Given the findings of this study, there are two target groups who need programmatic attention: compliers and noncompliers. Compliant teenagers need support and encouragement to continue with responsible family planning practice. Noncompliant teenagers need counseling with emphasis placed on building a sense of responsibility and organization which hopefully will lead to effective family planning practice. Importantly, family planning providers must continue to emphasize to both compliers and noncompliers that risks are associated with sexual activity, that pregnancy can happen to any female in the childbearing age, that sexual activity is an individual choice and can be discontinued, that abstinence is the most effective method of birth control, and that contraceptives must be correctly used for protection against unwanted pregnancy and sexually transmitted diseases.
3. More programs/outreach should to be directed to parents, especially those of noncompliant teenagers. Since parents of this group of teenagers were found to have lower educational levels and were more likely to have been poor, follow-up services could be directed toward helping them to enter GED programs for the purpose of upgrading their educational and economic status. Enhancing the families'

organization and opportunities for success may foster hopefulness and responsibility in the lives of their teenage daughters.

4. Make available mini-workshops designed to encourage participation by both teenagers and their parents. The focus of the workshops would be to help facilitate communication between parents and teens on a variety of issues pertaining to sexuality and how it is handled by families. A secondary focus would be to encourage parents and teens to just talk about themselves. It was surprising and yet sad to find from this study that a large percentage of teenagers in both groups did not know what educational levels their parents had attained.

Finally, the practitioner must consider carefully what a family planning clinic can do towards helping to socialize sexually active teenagers about the importance of regular family planning practice. It requires time and commitment, maturity, and organization for anyone to successfully follow a health plan. Most teenagers under 17 years old do not possess all of these qualities, nor should they be expected to have all of them at such a young age. This poses a dilemma. For example, although in Georgia the age of sexual consent is 14 years old, many school-age teenagers are not developmentally ready to accept the responsibility of sexual activity or pregnancy. Yet, teenagers are becoming sexually active and pregnant at much younger ages.

School-age family planners are still growing and still in need of guidance with respect to their reproductive health. In this society, parents are traditionally considered as the primary resources for transmission of information to children about their reproductive health. Unfortunately, however, teenagers often receive little or no parental guidance concerning sexual activity. Thus, although parental involvement in teenage family

planning is encouraged at public health family planning clinics, the availability of confidential access to services is essential for teenagers who need them.

At the same time social workers must devise and deliver research-based services which will encourage responsible family planning practices among adolescents.

List of References

List of References

Abrahamse, A. F., Morrison, P. A. and Waite, L. J. (1988, January/February). Teenagers Willing To Consider Single Parenthood: Who is at Greatest Risk? Family Planning Perspectives, 20 (1), 13-18.

Alan Guttmacher Institute. Teenage Pregnancy: The Problem That Hasn't Gone Away. New York: 1981.

Aldous, J. (1983, Spring). Birth Control Socialization: How To Avoid Discussing The Subject. Population and Environment, 6 (1), 27-38.

Balasonne, M. L. (1989, July). Return For Follow-up Care and Contraceptive Continuation Among Adolescents. Journal of Adolescent Research, 4 (3), 356-370.

Becker, M. H. , Maimian, L. A., Kirscht, J. Haefner, D. P., Drachman, R. H. and Taylor, D. W. (1979). Patient Perceptions and Compliance: Recent Studies of the Health Care Model. In B. R. Haynes, D. W. Taylor and D. L. Sackett (Eds.). Compliance In Health Care (pp. 78-109). Baltimore: John Hopkins.

Blackwell, B. (1976). Treatment Adherence. American Journal of Psychiatry, 129, 513-531.

Borguyne, R. W., Acosta, F. X. and Yamamota, J. (1983, March). Telephone Prompting To Increase Attendance At A Psychiatric Outpatient Clinic. American Journal of Psychiatry, 140 (3), 345-347.

Burt, M. R. (1986, September/October). The Public Costs of Teenage Childbearing. Family Planning Perspectives, 18 (5), 221-226.

Casper, L. M. (1990, May/June). Does Family Interaction Prevent Adolescent Pregnancy? Family Planning Perspectives, 22 (3), 109-114.

Chamie, M., Eisen, S., Forrest, J. D., Orr, M. T., and Torres, A. (1982, May/June). Factors Affecting Adolescents' Use of Family Planning Clinics. Family Planning Perspectives, 14 (3), 126-139.

Children's Defense Fund (1985). Preventing Children Having Children. (Clearinghouse Paper No. 1).

Chilman, C. S. (1980, November). Social and Psychological Research Concerning Adolescent Childbearing: 1970-1980. Journal of Marriage and The Family, 42 (4), 743-805.

Condelli, L. (1986, November). Social and Attitudinal Determinants of Contraceptive Choice: Using the Health Belief Model. The Journal of Sex Research, 22 (4), 478-491.

Condelli, L. (1986, November). Social and Attitudinal Determinants of Contraceptive Choice: Using the Health Belief Model. The Journal of Sex Research, 22 (4), 478-491.

Cromer, B., Chacho, M. and Phillips, S. (1987, June). Increasing Appointment Compliance Through Telephone Reminders: Does It Ring True? Developmental and Behavioral Pediatrics, 8 (3), 133-135.

Cyetkrovich, G. and Grote, B. (1981, Winter). Psychosocial Maturity and Teenage Contraceptive Use: An Investigation of Decision-making and Communication Skills. Population and Environment, 44, 211-226.

Dillard, K. D. and Pol, L. G. (1982, April). The Individual Economic Costs of Teenage Childbearing. Family Relations, 31 (2), 249-259.

Dryfoos, J. G. (1988, November/December). Family Planning Clinics - A Story of Grow and Conflict. Family Planning Perspectives, 20 (6), 282-287.

Durant, R., Jay, M. S., Linden, C. W., Shoffitt, T. and Litt, I. (1984, January). Influence of Phychosocial Factors on Adolescent Compliance With Oral Contraceptives. Journal of Adolescent Health Care, 5 (1), 1-6.

Emans, S. J., Grace, E., Woods, E. R., Smith, D. E., Klein, K. and Merola, J. (1987, June). Adolescent Compliance With The Use of Oral Contraceptives. Journal of American Medical Association, 257 (24), 3377-87.

Forrest, J. D. (1988, March/April). The Delivery of Family Planning Services in The United States. Family Planning Perspectives, 20 (2), 88-92.

Forrest, J. D. and Fordyce, R. R. (1988, May/June). U. S. Women's Contraceptive Attitudes and Practice: How Have They Changed in the 1980's? Family Planning Perspectives, 20 (3), 112-118.

Fox, G. L. and Ignau, J. (1980). Patterns and Outcomes of Mother-Daughter Communications About Sexuality. Journal of Social Issues., 36 (1), 7-29.

Frankel, B. and Hovell, M. (1978, October). Health Service Appointment Keeping: A Behavioral and Critical Review. Behavior Modification, 2 (4), 435-465.

Furstenberg, F. F., Shea, J., Allison, P., Herceg-Baron, R., and Webb, D. (1983, September/October). Contraceptive Continuation Among Adolescents Attending Family Planning Clinics. Family Planning Perspectives, 15 (5), 211-217.

Furstenberg, F., Brooks-Gunn, J. and Lansdale, L. C. (1989, February). Teenaged Pregnancy and Childbearing. American Psychologist, 44 (2), 313-320.

Furstenberg, F., Brooks-Gunn, J. and Morgan, S. P. (1987, July/August). Adolescent Mothers and Their Children in Later Life. Family Planning Perspectives, 19 (4), 142-151.

Furstenberg, Jr. (1991, April). As the Pendulum Swings: Teenage Childbearing and Social Concern. Family Relations, 127-138.

Georgia Center For Health Statistics, Department of Human Resources, Vital Records and Health Statistics Unit. Georgia Vital Statistics Reports, 1980-1989

Geronimus, A. T. (1987). On Teenage Childbearing In The United States. Population and Development Review, 13 (2), 245-279.

Hatcher, R., Stewart, F., Trussell, J., Kowal, D., Guest, F., Stewart, G. K., and Cates, W., (1990). Contraceptive Technology: 1990-1992. New York: Irvington Publishers.

Haynes, B. R., Taylor, D. W., and Sackett, D. L. (Eds.). (1979). Compliance in Health Care. Baltimore: John Hopkins.

Haynes, B. R. (1979). Strategies For Improving Compliance: A Methodologic Analysis and Review. In B. R. Haynes, D. W. Taylor and D. L. Sackett (Eds.). Compliance in Health Care (pp. 69-81). Baltimore: John Hopkins..

Henshaw, S. K. and Vort, J. V. (1989, March/April). Teenage Abortion, Birth and Pregnancy Statistics: An Update. Family Planning Perspectives, 21 (2), 85-88.

Henshaw, S. K., Binkin, N. J., Blaine, E. and Smith, J. C. (1985, March/April). A Portrait of American Women Who Obtain Abortions. Family Planning Perspectives, 17 (2), 90..

Herceg-Baron, R., Furstenberg, F. F., Shea, J. and Harris, K. M. (1986, March/April). Supporting Teenagers Use of Contraceptives: A Comparison of Clinic Services. Family Planning Perspectives, 18 (2), 61-66.

Herold, E. S. (1983, January). The Health Belief Model: Can It Help Us To Understand Contraceptive Use Among Adolescents? The Journal of School Health, 19-21.

Hoffert, S. L., Kahn, J. R. and Baldwin, W. (1987, March/April). Premarital Sexual Activity Among U. S. Teenage Women Over the Past Decades. Family Planning Perspectives, 19 (2), 46-53

Hogan, D. P., Astone, N. M. and Kitagawa, E. W. (1985, July/August). Social and Environmental Factors Influencing Contraceptive Use Among Black Adolescents, Family Planning Perspectives, 17 (4), 165-169.

Ireson, C. J. (1984, August). Adolescent Pregnancy and Sex Roles. Sex Roles, 11 (3&4), 189-201.

Irwin, C. E., Millstein, S. G., and Brunstetter-Shafer, M. (1981). Appointment Keeping Behavior in Adolescents. The Journal of Pediatrics, 99 (5), 799-802.

Jay, S., Litt, I. F. and Durant, R. H. (1984, April). Compliance With Therapeutic Regimens. Journal of Adolescent Health Care, 5 (2), 124-136.

Kalmuss, D., Lawton, A. I. and Namerow, P. B. (1987, Spring). Advantages and Disadvantages of Pregnancy and Contraception: Teenagers' Perceptions. Population and Environment, 9 (1), 23-40.

Kisker, E. E. (1984, September/October). The Effectiveness of Family Planning Clinics in Serving Adolescents. Family Planning Perspectives, 16 (5), 212-218.

Kisker, E. E. (1985, March/April). Teenagers Talk About Sex, Pregnancy and Contraception. Family Planning Perspectives, 17 (2), 83-90.

Kulig, J. W. (1985). Adolescent Contraception: An Update. Pediatrics, 675-680.

Kumabe, K., Nishida, C., O'Hara, D., and Woodruff, C. (Eds. 1986). Historical Perspectives on Maternal and Child Health Services. A Handbook For Social Work Education And Practice In Community Health Settings (Fifth Printing). University of Hawaii, School of Social Work.

Litt, I. F., Clusky, W. R. and Rudd, S. (1980). Identifying Adolescents At Risk For Noncompliance With Contraceptive Therapy. Journal of Pediatrics, 96 (4), 742-745.

Lowe, C. S. and Radius, S. M. (1987, Summer). Young Adults' Contraceptive Practices: An Investigation of Influences. Adolescence, 22 (86), 291-304.

Maciak, B., Spitz, A., Strauss, L. T., Morris, L., Warren, C. and Marks, J. (1987, October). Pregnancy and Birth Rates Among Sexually Experienced U. S. Teenagers - 1974, 1980, and 1983. Journal of American Medical Association, 258 (15), 2069-2071.

Makinson, C. (1985, May/June). The Health Consequences of Teenage Fertility. Family Planning Perspectives, 17 (3), 132-139.

Meyers, Thackway and Johnson (1983). Appointment Compliance Among Hypertensives.

Miller, B. C. and Moore, K. A. (1990, November). Adolescent Sexual Behavior, Pregnancy and Parenting: Research Through the 1980's. Journal of Marriage and Family, 52, 1025-1044.

Mosher, W. D. and Horn, M. C. (1988, January/February). First Family Planning Visits by Young Women. Family Planning Perspective, 20 (1), 33-40.

Mosher, W. D. and Pratt, W. F. (1990, March 20). Contraceptive Use in the United States: 1973-88. Advance Data, 182: Vital and Health Statistics of the National Center on Health Statistics.

Mott, F. L. (1986, January/February). The Pace of Repeated Childbearing Among Young American Mothers. Family Planning Perspectives, 18 (1), 5 - 12

Mott, F. L. and Marsiglio, W. (1985, September/October). Early Childbearing and Completion of High School. Family Planning Perspectives, 17 (5), 234-237.

Nachmias, D., and Nachmias, C. (1987). Research Methods In The Social Sciences (3rd ed.). New York: St. Martin.

Namerow, P. B., Philliber, S. G. and Hughes, M. (1983, July/August). Follow-up of Adolescent Family Planning Clinic Users. Family Planning Perspectives, 15 (4), 172-176.

Nathanson, C. and Becker, M. H. (1983, Spring). Contraceptive Behavior Among Unmarried Young Women: A Theoretical Framework for Research. Population and Environment, 6 (1), 39-59.

Nazarian, L. F., Mechaber, J., Charney, E. and Coulter, M. P. (1974, March). Effect of a Mailed Appointment Reminder on Appointment Keeping. Pediatrics, 53 (3), 349-352.

Newcomer, S. F. and Udry, J. R. (1985, July/August). Parent-Child Communication and Adolescent Sexual Behavior. Family Planning Perspectives, 17 (4), 169-174.

Overview of Family Planning Services. (1990). National Family Planning Reproductive Health Association (NFPRHA) Publication..

Patten, M. A. (1981). Self Concept and Self Esteem: Factors in Adolescent Pregnancy. Adolescence, 16 (64), 765-777.

Petosa. Rick and Wessinger, Janet (Summer, 1990). The AIDS Education needs of Adolescents: A Theory Based Approach. AIDS Education and Prevention 2 (2) 127-136.

Radecki, S. E., and Bernstein, G. S. (1990, May/June). An Assessment of Contraceptive Need In The Inner City. Family Planning Perspectives, 22 (3), 122-127.

Scher, P. W., Emans, S. J. and Grace, E. M. (1982, September). Factors Associated With Compliance to Oral Contraceptive Use In An Adolescent Population. Journal of Adolescent Health Care, 3 (2), 120-123.

Schultz, S. K. (1980, Spring). Compliance With Therapeutic Regimens in Pediatrics: A Review of implications For Social Work Practice. Social Work in Health Care, 5 (3), 267-279.

Scott, J. M. (1983, Winter). The Sentiments of Love and Aspirations for Marriage And Their Association With Teenage Sexual Activity and Pregnancy. Adolescence, 18 (72), 889-897.

Shah, F. and Zelnik, M. (1981, May). Parent and Peer Influence on Sexual Behavior, Contraceptive Use, and Pregnancy Experiences of Young Women. Journal of Marriage and the Family, 43 (2), 339-348.

Silverman, J., Torres, A. and Forrest, J. D. (1987, May/June). Barriers To Contraceptive Services. Family Planning Perspectives, 19 (3), 94-102.

Simkins, L. (1984, Spring). Consequences of Teenage Pregnancy and Motherhood. Adolescence, 19 (73), 39-54.

Smith, N. A., Ley, P., Seale. K. P., Shaw, J., Health Beliefs, Satisfaction and Compliance (Dec. 1987). Patient Education and Counseling 10 (3) 279 - 286.

Smith, P. B., Nenney, S. W., Weinman, M. and Mumford, D. M. (1982, June). Factors Affecting Perception of Pregnancy Risk in The Adolescent. Journal of Youth and Adolescence., 11 (3), 207-215.

Smith, P., Weinman, M. and Munford, D. (1982, February). Social and Affective Factors Associated With Adolescent Pregnancy. The Journal of School Health, 52 (2), 90-93.

Sonenstein, F., Pleck, J. H. and Ku, L. C. (1989, July/August). Sexual Activity, Condom Use and Aids Awareness Among Adolescent Males. Family Planning Perspectives, 21 (4), 152-158.

SPSS^{X} User's Guide (2nd Ed.) McGraw-Hill Book Co. New York. 1986.

Stark, E. (1986, October). Young, Innocent and Pregnant. Psychology Today, pp. 28-35.

The University of Georgia Cooperative Extension Service. The Georgia County Guide, 1989.

Trussell, J. (1988, November/December). Teenage Pregnancy in The United States. Family Planning Perspectives, 20 (6), 262-272.

Turner, A. J. and Vernon, J. C. (1976). Prompts to Increase Attendance in a Community Mental Health Center. Journal of Applied Behavioral Analysis, 9, 141-145.

Upchurch, D. M., and McCarty, J. (1989, September/October). Adolescent Childbearing and High School Completion in the 1980's: Have Things Changed? Family Planning Perspectives, 21 (5), 199-202.

Westney, O. E., Jenkins, R. R., Butts, J. D. and Williams, I. (1984). Development and Behavior in Black Adolescents. Adolescence, 19 (75), 557-568.

Whitley, Jr, and Schofield, J. W. (1985-1986). A Meta-Analysis of Research on Adolescent Contraceptive Use. Population and Environment, 8 (3 & 4), 173-203.

Zabin, L. S., Hirsch, M. D., Smith, E. A. and Hardy, J. B. (1984, July/August). Adolescent Sexual Attitudes and Behavior: Are They Consistent? Family Planning Perspectives, 16 (4), 181-185.

Zabin, L. S.. and Clark, S. D. (1981, September/October). Why They Delay: A Study of Teenage Family Planning Clinic Patients Family Planning Perspectives, 13 (5), 205-217.

Zabin, L., Smith, E. A., Hirsch, M. B. and Hardy, J. B. (1986, November). Ages of Physical Maturation and First Intercourse in Black Teenage Males and Females. Demography, 23 (4), 595-605.

Zelnik, M. and Kantner, J. F. (1978, Jan/Feb). First Pregnancies To Women Aged 15-19: 1976 and 1971. Family Planning Perspectives, 10 (1), 11-20.

Zelnik, M. and Kantner, J. F. (1980). Sexual Activity Contraceptive Use And Pregnancy Among Metropolitan Area Teenagers: 1971-1979. Family Planning Perspectives, 12, 230-237.

Zelnik, M. and Kantner, J. F. (1979, September/October). Reasons for Nonuse of Contraceptives by Sexually Active Women Aged 15-19. Family Planning Perspectives, _ (5), 289-296.

Zelnik, M., Kim, Y. J., and Kantner, J. F. (1979, May/June). Probabilities of Intercourse and Contraception Among U. S. Teenage Females, 1971 and 1976. Family Planning Perspectives, 11 (3), 177-182.

APPENDICES

Appendix A:

Survey Questionnaires for Teenage Family Planners # 1 and # 2

Survey Questionnaire for Teenage Family Planners
Form for Obtaining Informed Consent #1

Dear Family Planner,

We are conducting a survey to see how teenagers feel about birth control use for pregnancy prevention, how they feel about coming to the clinic for family planning services, and to find out the reasons why some teenagers keep their scheduled return visits and others do not. As you were informed by the staff member, we would like for you to answer questions contained on a questionnaire about what you have just read. However, **your signed consent for participation is needed before anyone can complete the questionnaire.** You are in no way obligated to participate in this study, but if you would take the time to do so, your responses to the questionnaire will be very helpful. The answers you provide will add to the understanding we have about our family planning services, help us to plan for appropriate improvements where needed, and to help us in understanding more about the teenagers who use our services.

All the information gathered will be kept **strictly confidential.** Your answers will not be singled out, but will be counted together with those of all the other teenagers who participate in this study. When all the information is put together, **yours can not be identified.**

If you agree to participate in this study, please sign on the line below. If you do not want to give signed consent, that's OK. You will still be able to receive family planning services as always from the clinic. Once you start completing the questionnaire, you can also stop or refuse to answer any one of the questions. Also, if you have questions about the study, either now or later, please contact me at the Northeast Health District. That's the main office for this health department, at 404-542-9533. I am one of the employees and also a doctoral student at the University of Tennessee, Knoxville, Tennessee. I will evaluate the information from all the questionnaires and write a report about my findings. The research report should be ready in about 6 months. If you would like to see it, one will be available at the clinic. Feel free in asking to see it when you come in for services after July, 1992.

Now, would you like to participate in the study? If you do,
Sign here _____OK! Now, if you have signed on the above line, begin completing the questionnaire. It should take a little less than 10 minutes to complete the questionnaire. **After you have completed the questionnaire, put it and the signed informed form in the envelope provided by the person who gave it to you and seal it. She will return it to the researcher.**

Thank you for helping us on this project. What you think about your family planning clinic experience is very important to us. What you will share on your questionnaire will help you and other teenagers in some way.

Sincerely,
Ola L. Jennings

COL. (NO. 1 - 2)

Survey Questionnaire for Teenage Family Planners - # 1

SECTION 1. CONTRACEPTIVE USE

This first group of questions ask for information about your birth control use. Please answer as best as you can. **(CIRCLE THE ONE RESPONSE THAT BEST DESCRIBES YOU)**

(3 - 21)

1. Which, if any, of the following contraceptive methods are you presently using?

A. BIRTH CONTROL PILLS (1)
B. CONDOMS (2)
C. CONDOMS AND FOAM (3)
D. SPONGES (4)
E. NOT ANY BIRTH CONTROL METHOD - **(SKIP QUESTION 2 AND GO TO QUESTION 3)** (5)

2. How often do you use your birth control method?

A. ALWAYS **(GO TO QUESTION 5)** (1)
B. SOMETIMES **(GO TO QUESTION 3)** (2)
C. NEVER **(GO TO QUESTION 3)** (3)

3. What are the reasons for not always using your birth control method? **(READ EACH STATEMENT AND DECIDE WHICH RESPONSE OR RESPONSES MOST CLOSELY DESCRIBE YOU, AND CIRCLE THEM)**

(1 = YES 0 = NO)

A. NOT HAVING SEX NOW (01)
B. DON'T THINK OF USING MY BIRTH CONTROL METHOD (02)
C. DON'T THINK THAT I WILL GET PREGNANT WHILE HAVING SEX (03)
D. SEX IS UNEXPECTED/NO TIME TO PREPARE FOR IT (04)
E. WANT TO GET PREGNANT (05)
F. PARTNER OBJECTS TO BIRTH CONTROL USE (06)
G. FEEL IT'S WRONG TO USE BIRTH CONTROL (07)
H. PARENTS ARE AGAINST BIRTH CONTROL USE (08)
I WORRY ABOUT SIDE EFFECTS (09)
J. IT'S THE PARTNER'S RESPONSIBILITY TO USE PROTECTION DURING SEXUAL INTERCOURSE (10)
K. FEEL THAT USING BIRTH CONTROL IS TOO MUCH OF A HASSLE (11)
L. DO NOT FEEL BIRTH CONTROL WORKS IN PREVENTING PREG (12)
M. FEEL TOO YOUNG TO BECOME PREGNANT (13)
N. ONLY HAVE SEX ABOUT ONCE OR TWICE PER MONTH (14)
O. OTHER REASON (**WRITE IN**_____) (15)

P. OTHER REASON (**WRITE IN**_____) (16)
Q. OTHER REASON (**WRITE IN**_____) (17)

4. Now, of those items you have just circled, which ones were the three main reasons why you sometimes use or never use birth control? **(PUT THE LETTERS BY YOUR REASONS ON THE LINES SHOWN BELOW).**

(22 - 29)

Which was the main reason?

_____

Which was the second main reason?

_____

Which was the third main reason?

_____

(KEEP GOING! CIRCLE ONE RESPONSE AFTER EACH QUESTION)

5. Do you think the birth control method you are using is effective in preventing pregnancy. Would you say that it is effective, not effective or you are not sure about its effectiveness?

A. EFFECTIVE (2)
B. NOT EFFECTIVE (1)
C. NOT SURE ABOUT ITS EFFECTIVENESS (0)

6. How do you feel about becoming pregnant prior to finishing high school? Would you say that it would be the best thing that could happen to you, it would be the worst thing to happen to you, or it does not matter whether or not your become pregnant.

A. BEST THING THAT COULD HAPPEN TO ME (1)
B. IT DOES NOT MATTER WHETHER OR NOT I BECOME PREGNANT (0)
C. WORST THING THAT COULD HAPPEN TO ME (2)

SECTION II. REASONS FOR RETURN VISIT NONCOMPLIANCE

These next set of questions will ask you about reasons why teenagers do not keep their scheduled return clinic visits. There are no right or wrong answers. Your answers are correct if they describe your reasons.

(1 = YES 0 = NO)

7. What were some of the reasons why you missed keeping your last scheduled visit at the family planning clinic? **(READ EACH STATEMENT AND DECIDE WHICH RESPONSE OR RESPONSES WHICH MOST CLOSELY DESCRIBE YOU, AND CIRCLE THEM).**

(30 - 55)

A. HAD NOT USED UP ALL MY SUPPLY OF BIRTH CONTROL	(01)
B. WAS PREGNANT	(02)
C. WANT TO BECOME PREGNANT	(03)
D. HAD DECIDED NOT TO USE BIRTH CONTROL ANYMORE	(04)
E. WAS EXPERIENCING SIDE EFFECTS FROM MY B/C METHOD	(05)
F. DON'T LIKE HAVING THE VAGINAL EXAM	(06)
G. HAVE NOT BEEN SEXUALLY ACTIVE	(07)
H. PARENTS OBJECT TO BIRTH CONTROL USE	(08)
I. PARTNER OBJECTS TO BIRTH CONTROL USE	(09)
J. USED ANOTHER MEDICAL PROVIDER FOR MY BIRTH CONTROL NEEDS	(10)
K. THERE ARE UNFRIENDLY RUDE CLINIC STAFF	(11)
L. THERE IS TOO LONG OF A WAITING TIME FOR SERVICES	(12)
M. FORGOT THE VISIT HAD BEEN SCHEDULED	(13)
N. WAS WORKING OR IN SCHOOL DURING CLINIC HOURS	(14)
O. WAS TOO EMBARRASSED TO RETURN FOR SERVICES	(15)
P. THERE IS NOT ENOUGH PRIVACY	(16)

8. Now, of those reasons you just circled, which ones were the three main reasons why you did not keep your last scheduled return visit at the family planning clinic. **(PUT THE LETTERS BY YOUR REASONS ON THE APPROPRIATE LINE AFTER EACH QUESTION SHOWN BELOW).**

Which was the main reason?

_____

Which was the second main reason?

_____

Which was the third main reason?

_____

Just a few more questions. You're really doing a great job.

SECTION III. FOLLOW-UP COMMUNICATION REMINDERS

(CIRCLE ONE RESPONSE)

9. Did you receive any one of the following to remind you about the scheduled return clinic visit? Would it have been a mailed letter, a telephone call, a mailed letter and telephone call, or none of those?

A. MAILED LETTER (GO TO QUESTION 11) (1)
B. TELEPHONE CALL (GO TO QUESTION 11) (2)
C. MAILED LETTER AND TELEPHONE CALL (GO TO QUESTION 11) (3)
D. NONE OF THE ABOVE (STOP! GO TO QUESTION 10) (4)

(56 - 64)

10. Would receiving a follow-up reminder help you to keep your scheduled return visit at the family planning clinic?

A. NO, NOT AT ALL (0)
B. ONLY A LITTLE (3)
C. SOME (2)
D. YES, VERY MUCH SO (1)

SECTION IV. DEMOGRAPHIC AND HEALTH INFORMATION

And finally, these last few questions ask for a little information about yourself.

(CIRCLE ONE RESPONSE AFTER EACH QUESTION)

11. Are you enrolled in school?

A. YES (1)
B. NO (DON'T ANSWER QUESTIONS 12 & 13, GO TO QUESTION 14) (0)

12. What is your present grade level?

A. 12TH GRADE (1)
B. 11TH GRADE (2)
C. 10TH GRADE (3)
D. 9TH GRADE (4)
E. 8TH GRADE (5)
F. 7TH GRADE (6)
G. 6TH GRADE AND UNDER (7)

13. What do you plan to do after finishing high school?

A. GO TO COLLEGE (4)
B. GO TO TECHNICAL SCHOOL (3)
C. GET A JOB (2)
D. ENTER THE MILITARY (1)
E. NOT SURE (0)

14. What is your age? **(WRITE IN HERE)**_____ years old.

15. Have you started your period? YES _(1)_____ NO _(0)_____

16. At what age did you begin your period?

(65 - 71)

A. **(WRITE IN)** _____ YEARS OLD
B. CAN'T REMEMBER (2)
C. DON'T WANT TO ANSWER (3)

17. At what age did you begin to have sexual intercourse?

A. **(WRITE IN)** _____ YEARS OLD (1)
B. CAN'T REMEMBER (2)
C. DON'T WANT TO ANSWER (3)

18. During your last clinic visit did the nurse advise you to go to a doctor or dentist for a medical problem or concern?

A. YES (1)
B. NO (0)
C. CAN'T REMEMBER (2)

19. Do you live with both parents, one parent, other relatives, in a foster home, or another living arrangement?

A. BOTH PARENTS (1)
B. MOTHER (2)
C. FATHER (3)
D. OTHER RELATIVES (4)
E. FOSTER HOME (5)
F. OTHER LIVING ARRANGEMENTS **(WRITE IN)**_____ (6)

20. To the best of your knowledge, what is the highest grade or year of school your mother completed. **(LOOK AT THE CHOICES SHOWN BELOW AND CIRCLE THE ONE WHICH DESCRIBES YOUR MOTHER'S SCHOOLING.)**

A. SOME HIGH SCHOOL (1)
B. HIGH SCHOOL GRADUATE OR GED CERTIFICATE (2)
C. TECHNICAL SCHOOL GRADUATE (3)
D. COLLEGE GRADUATE (4)
E. DON'T KNOW/NOT SURE (0)

21. To the best of your knowledge, what is the highest grade or year of school your father completed. **(LOOK AT THE CHOICES SHOWN BELOW AND CIRCLE THE ONE WHICH DESCRIBES YOUR FATHER'S SCHOOLING.)**

A. SOME HIGH SCHOOL	(1)
B. HIGH SCHOOL GRADUATE OR GED CERTIFICATE	(2)
C. TECHNICAL SCHOOL GRADUATE	(3)
D. COLLEGE GRADUATE	(4)
E. DON'T KNOW/NOT SURE	(0)

22. To the best of your knowledge, do your parents or the people with whom you live receive any type of public assistance, such as Medicaid, welfare payments, or food stamps?

(72 - 80)

A. MEDICAID	(1)
B. WELFARE PAYMENTS	(2)
C. FOOD STAMPS	(3)
D. A AND B	(4)
E. A AND C	(5)
F. B AND C	(6)
G. NONE OF THE ABOVE	(0)
H. ALL OF THE ABOVE	(7)

23. Do you have any children?

A. YES How many? **(WRITE IN THE NUMBER)** _____	(1)
B. NO	(0)
C. DON'T WANT TO ANSWER	(2)

24. Have you ever been pregnant?

A. YES	(1)
B. NO	(0)
C. NOT SURE	(2)
D. DON'T WANT TO ANSWER	(3)

25. Have you ever had a sexually transmitted disease (STD)?

A. YES	(1)
B. NO	(0)
C. NOT SURE	(2)
D. DON'T WANT TO ANSWER	(3)

26. Do you know how old your mother was when you were born?

A. YES **(WRITE IN HER AGE HERE)** _____YEARS OLD	(1)
B. I DON'T KNOW	(0)
C. DON'T WANT TO ANSWER	(2)

YES! YOU ARE FINISHED! This is the end of the questionnaire. We are extremely grateful for your time and responses. Without your help, the information would not be nearly as complete. As soon as the study is completed, a copy of the results will be available at the family planning clinic. Also, the findings will be shared at the quarterly meeting of the Family Planning Patient Advisory Committee. Thank you again.

Survey Questionnaire for Teenage Family Planners
Form for Obtaining Informed Consent # 2

Dear Family Planner,

We are conducting a survey to see how teenagers feel about birth control use for pregnancy prevention, how they feel about coming to the clinic for family planning services, and to find out the reasons why some teenagers keep their scheduled return visits and others do not. As you were informed by the staff member, we would like for you to answer questions contained on a questionnaire about what you have just read. However, **your signed consent for participation is needed before anyone can complete the questionnaire.** You are in no way obligated to participate in this study, but if you would take the time to do so, your responses to the questionnaire will be very helpful. The answers you provide will add to the understanding we have about our family planning services, help us to plan for appropriate improvements where needed, and to help us in understanding more about the teenagers who use our services.

All the information gathered will be kept **strictly confidential.** Your answers will not be singled out, but will be counted together with those of all the other teenagers who participate in this study. When all the information is put together, **yours can not be identified.**

If you agree to participate in this study, please sign on the line below. If you do not want to give signed consent, that's OK. You will still be able to receive family planning services as always from the clinic. Once you start completing the questionnaire, you can also stop or refuse to answer any one of the questions. Also, if you have questions about the study, either now or later, please contact me at the Northeast Health District. That's the main office for this health department, at 404-542-9533. I am one of the employees and also a doctoral student at the University of Tennessee, Knoxville, Tennessee. I will evaluate the information from all the questionnaires and write a report about my findings. The research report should be ready in about 6 months. If you would like to see it, one will be available at the clinic. Feel free in asking to see it when you come in for services after July, 1992.

Now! Would you like to participate in the study? If you do, Sign here _____OK! Now, if you have signed on the above line, tear this top sheet off and give it back to the person who gave it to you. Are you ready? Begin completing the questionnaire. It should take a little less than 10 minutes to complete the questionnaire. **After you have completed the questionnaire, put it in the box marked "Survey For Teenagers".**

Thank you for helping us on this project. What you think about your family planning clinic experience is very important to us. What you will share on your questionnaire will help you and other teenagers in some way.

Sincerely,
Ola L. Jennings

Col. (No. 1 - 3)

Survey Questionnaire for Teenage Family Planners - # 2

SECTION 1. CONTRACEPTIVE USE

(4 - 22)

This first group of questions ask for information about your birth control use. Please answer as best as you can. **(CIRCLE THE ONE RESPONSE THAT BEST DESCRIBES YOU)**

1. Which, if any, of the following contraceptive methods are you presently using?

   A. BIRTH CONTROL PILLS (1)
   B. CONDOMS (2)
   C. CONDOMS AND FOAM (3)
   D. SPONGES (4)
   E. NOT ANY BIRTH CONTROL METHOD - **(SKIP QUESTION 2 AND GO TO QUESTION 3)** (5)

2. How often do you use your birth control method?

   A. ALWAYS **(GO TO QUESTION 5)** (1)
   B. SOMETIMES **(GO TO QUESTION 3)** (2)
   C. NEVER **(GO TO QUESTION 3)** (3)

3. What are the reasons for not always using your birth control method? **(READ EACH STATEMENT AND DECIDE WHICH RESPONSE OR RESPONSES MOST CLOSELY DESCRIBE YOU, AND CIRCLE THEM)**

   (1 = YES 0 = NO)

   A. NOT HAVING SEX NOW (01)
   B. DON'T THINK OF USING MY BIRTH CONTROL METHOD (02)
   C. DON'T THINK THAT I WILL GET PREGNANT WHILE HAVING SEX (03)
   D. SEX IS UNEXPECTED/NO TIME TO PREPARE FOR IT (04)
   E. WANT TO GET PREGNANT (05)
   F. PARTNER OBJECTS TO BIRTH CONTROL USE (06)
   G. FEEL IT'S WRONG TO USE BIRTH CONTROL (07)
   H. PARENTS ARE AGAINST USING BIRTH CONTROL USE (08)
   I WORRY ABOUT SIDE EFFECTS (09)
   J. IT'S THE PARTNER'S RESPONSIBILITY TO PROTECTION DURING SEXUAL INTERCOURSE (10)
   K. FEEL THAT USING BIRTH CONTROL IS TOO MUCH OF A HASSLE (11)
   L. DO NOT FEEL BIRTH CONTROL WORKS IN PREVENTING PREG (12)
   M. FEEL TOO YOUNG TO BECOME PREGNANT (13)
   N. ONLY HAVE SEX ABOUT ONCE OR TWICE PER MONTH (14)
   O. OTHER REASON (**WRITE IN**_____) (15)

P. OTHER REASON (WRITE IN_____) (16)
Q. OTHER REASON (WRITE IN_____) (17)

(23 - 30)

4. Now, of those items you have just circled, which ones were the three main reasons why you sometimes use or never use birth control? **(PUT THE LETTERS BY YOUR REASONS ON THE LINES SHOWN BELOW).**

Which was the main reason?

_____

Which was the second main reason?

_____

Which was the third main reason?

_____

(KEEP GOING! CIRCLE ONE RESPONSE AFTER EACH QUESTION)

5. Do you think the birth control method you are using is effective in preventing pregnancy. Would you say that it is effective, not effective or you are not sure about its effectiveness?

A. EFFECTIVE (2)
B. NOT EFFECTIVE (1)
C. NOT SURE ABOUT ITS EFFECTIVENESS (0)

6. How do you feel about becoming pregnant prior to finishing high school? Would you say it would be the best thing that could happen to you, it would be the worst thing to happen to you, or it does not matter whether or not your become pregnant.

A. BEST THING THAT COULD HAPPEN (1)
B. IT DOES NOT MATTER WHETHER OR NOT I BECOME PREGNANT (0)
C. WORST THING THAT COULD HAPPEN TO ME (2)

SECTION II. REASONS FOR RETURN VISIT COMPLIANCE

(32 - 42)

These next set of questions will ask you about reasons why teenagers keep their scheduled return clinic visits. There are not right or wrong answers. Your answers are correct if they describe your reasons.

(1 = YES 0 = NO)

7. What are the reasons why you kept this clinic visit? **(READ EACH STATEMENT AND CIRCLE ALL THE APPROPRIATE LETTERS BY THE STATEMENT WHICH BEST DESCRIBES YOUR REASONS).**

A. NEEDED TO PICK UP ANOTHER SUPPLY OF BIRTH CONTROL (01)
B. PREGNANCY TESTING WAS NEEDED (02)
C. IT WAS TIME FOR MY ANNUAL EXAM VISIT (03)
D. I CAN GET FREE CONTRACEPTIVES (04)
E. I LIKE THE SERVICES HERE (05)
F. THE CLINIC HOURS ARE CONVENIENT (06)
G. MY PARTNER REMINDED ME TO PICK UP MY SUPPLY OF BIRTH CONTROL (07)
H. MY PARENTS REMINDED ME THAT IT WAS TIME TO COME BACK FOR SERVICES (08)
I. I HAVE SEXUAL INTERCOURSE ON A REGULAR BASIS AND DON'T WANT TO GET PREGNANT (09)
J. OTHER REASON **(WRITE IN)** _____ (10)
K. OTHER REASON **(WRITE IN)** _____ (11)
L. OTHER REASON **(WRITE IN)** _____ (12)

(43 - 49)

8. Now, of those statements you have just circled or written in, which ones were the three main reasons why you kept your scheduled return visit today? **(PUT THE LETTERS ON THE LINE AFTER EACH QUESTION SHOWN BELOW**

Which was the main reason?

_____

Which was the second main reason?

_____

Which was the third main reason?

_____

Just a few more questions. You're really doing a great job.

SECTION III. FOLLOW-UP COMMUNICATION REMINDERS

(CIRCLE ONE RESPONSE)

9. Did you receive any one of the following to remind you about the scheduled return clinic visit? Would it have been a mailed letter, a telephone call, a mailed letter and telephone call, or none of those?

A. MAILED LETTER **(GO TO QUESTION 11)** (1)
B. TELEPHONE CALL **(GO TO QUESTION 11)** (2)
C. MAILED LETTER AND TELEPHONE CALL **(GO TO QUESTION 11)** (3)
D. NONE OF THE ABOVE **(STOP! GO TO QUESTION 10)** (4)

(50)

10. Would receiving a follow-up reminder help you to keep your scheduled return visit at the family planning clinic?

A. NO, NOT AT ALL (0)
B. ONLY A LITTLE (1)
C. SOME (2)
D. YES, VERY MUCH SO (3)

(51 - 58)

SECTION IV. DEMOGRAPHIC AND HEALTH INFORMATION

And finally, these last few questions ask for a little information about yourself.

(CIRCLE ONE RESPONSE AFTER EACH QUESTION)

11. Are you enrolled in school?

A. YES (1)
B. NO **(DON'T ANSWER QUESTIONS 12 AND 13, GO TO QUESTION 14)** (0)

12. What is your present grade level?

A. 12TH GRADE (1)
B. 11TH GRADE (2)
C. 10TH GRADE (3)
D. 9TH GRADE (4)
E. 8TH GRADE (5)
F. 7TH GRADE (6)
G. 6TH GRADE AND UNDER (7)

13. What do you plan to do after finishing high school?

A. GO TO COLLEGE (4)
B. GO TO TECHNICAL SCHOOL (3)
C. GET A JOB (2)
D. ENTER THE MILITARY (1)
E. NOT SURE (0)

14. What is your age? **(WRITE IN HERE)**_____ years old.

15. Have you started your period? YES (1)_____ NO (0)_____

16. At what age did you begin your period?

A. (WRITE IN) _____ YEARS OLD
B. CAN'T REMEMBER (2)
C. DON'T WANT TO ANSWER (3)

(59 - 65)

17. At what age did you begin to have sexual intercourse?

A. (WRITE IN) _____ YEARS OLD (1)
B. CAN'T REMEMBER (2)
C. DON'T WANT TO ANSWER (3)

18. During your last clinic visit did the nurse advise you to go to a doctor or dentist for a medical problem or concern?

A. YES (1)
B. NO (0)
C. CAN'T REMEMBER (2)

19. Do you live with both parents, one parent, other relatives, in a foster home, or another living arrangement?

A. BOTH PARENTS (1)
B. MOTHER (2)
C. FATHER (3)
D. OTHER RELATIVES (4)
E. FOSTER HOME (5)
F. OTHER LIVING ARRANGEMENTS (WRITE IN) _____ (6)

20. To the best of your knowledge, what is the highest grade or year of school your mother completed. **(LOOK AT THE CHOICES SHOWN BELOW AND CIRCLE THE ONE WHICH DESCRIBES YOUR MOTHER'S SCHOOLING.)**

A. SOME HIGH SCHOOL (1)
B. HIGH SCHOOL GRADUATE OR GED CERTIFICATE (2)
C. TECHNICAL SCHOOL GRADUATE (3)
D. COLLEGE GRADUATE (4)
E. DON'T KNOW/NOT SURE (0)

21. To the best of your knowledge, what is the highest grade or year of school your father completed. **LOOK AT THE CHOICES SHOWN BELOW AND CIRCLE THE ONE WHICH DESCRIBES YOUR FATHER'S SCHOOLING.)**

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C. TECHNICAL SCHOOL GRADUATE (3)
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22. To the best of your knowledge, do your parents or the people with whom you live receive any type of public assistance, such as Medicaid, welfare payments, or food stamps?

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C. FOOD STAMPS (3)
D. A AND B (4)
E. A AND C (5)
F. B AND C (6)
G. NONE OF THE ABOVE (0)
H. ALL OF THE ABOVE (7)

23. Do you have any children?

A. YES How many? **(WRITE IN THE NUMBER)** _____ (1)
B. NO (0)
C. DON'T WANT TO ANSWER (2)

24. Have you ever been pregnant?

A. YES (1)
B. NO (0)
C. NOT SURE (2)
D. DON'T WANT TO ANSWER (3)

25. Have you ever had a sexually transmitted disease (STD)?

A. YES (1)
B. NO (0)
C. NOT SURE (2)
D. DON'T WANT TO ANSWER (3)

26. Do you know how old your mother was when you were born?

A. YES **(WRITE IN HER AGE HERE)** _____YEARS OLD(1)
B. I DON'T KNOW (0)
C. DON'T WANT TO ANSWER (2)

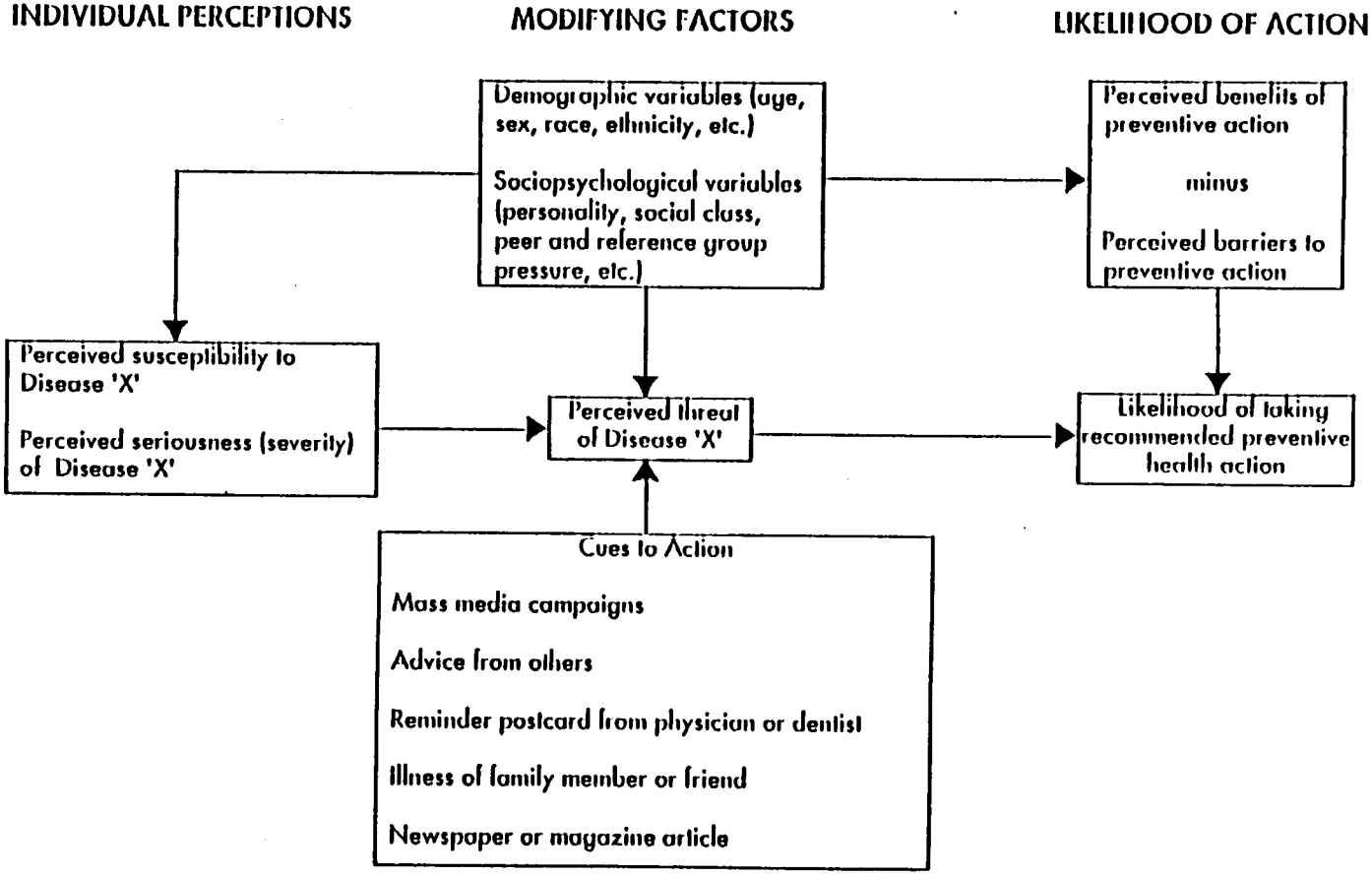
YES! YOU ARE FINISHED! This is the end of the questionnaire. We are extremely grateful for your time and responses. Without your help, the information would not be nearly as complete. As soon as the study is completed, a copy of the results will be available at the family planning clinic. Also, the findings will be shared at the quarterly meeting of the Family Planning Patient Advisory Committee. Thank you again.

Appendix B:

Version of The Original Health Belief Model

FIGURE 1

Original Formulation of the Health Belief Model



Source: Becker, M., Maiman, L., Kirscht, J.P., Haefner, D.P., Drachman, R.H., and Taylor, Wayne D., "Patient Perceptions and Compliance: Recent Studies on the Health Belief Model", *Compliance in Health Care*. Haynes, B., Taylor, D., and Sakett, D. (Eds) 1979.

VITA

Ola Lumpkin Jennings was born in Athens, Georgia. She attended public schools in the Clarke County School District and graduated from Athens High and Industrial School in June, 1962. The following September she entered the Fort Valley State College in Georgia and in June, 1966 received the degree of Bachelor of Arts in Sociology and Pre-Professional Social Work. She entered the University of Georgia, Athens, in September, 1967 and in June, 1969 received a Master of Social Work degree. Between 1982 and 1984 she matriculated in the Child Development Specialist Program at Peabody College of Vanderbilt University, Nashville, Tennessee. In September, 1984 she entered the University of Tennessee, Knoxville and in August, 1992 received the degree of Doctor of Philosophy in Social Work.

She is presently employed as a program specialist/manager at the Northeast Health District, Athens, Georgia.