Young Adult Women'S Reflections Of Contraceptive Practices During Their Adolescence

Dana Martin
Mississippi University for Women

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Young Adult Women’s Reflections of Contraceptive Practices During Their Adolescence

by

Dana Martin

A Thesis
Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Nursing in the Division of Nursing Mississippi University for Women

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Young Adult Women’s Reflections of Contraceptive Practices During Their Adolescence

by

Dana Martin

Instructor in Nursing
Director of Thesis

Assistant Professor of Nursing
Member of Committee

Instructor in Nursing
Member of Committee

Director of the Graduate School
Consistent use of contraception is necessary to help prevent the rising numbers of adolescent pregnancies. Failure to appropriately choose a contraceptive method leads to adolescent pregnancy which has negative consequences for both mother and child socially, financially, physically, and psychologically. Therefore, the purpose of this descriptive study was to explore reasons for adolescent contraceptive choice and compliance as identified by young adult women. Parse’s Theory of Health as Human Becoming was used as the theoretical framework to guide the research. The research was guided by two questions: What contraceptive practices do young adult women report they used during their adolescent years? and What rationales do young adult women report for the contraceptive choices made during their adolescent years? The convenience sample of 39 subjects consisted of young adult women between the ages of 18 and 28. Data were collected using Martin’s Contraceptive Questionnaire. Responses to the instrument were analyzed using measures of central tendency and frequency distributions. The most common method of contraception used by these subjects was the oral contraceptive pill, either alone or in combination with another method. Contraceptive methods were most frequently obtained from the private healthcare provider’s office, the prevailing reason cited for choice of method was ease of use. Most of those who used contraception did so consistently because of a wish to avoid pregnancy. The researcher concluded that previous experiences with sexual activity impacted the contraceptive decisions made by the subjects. Having and ensuring future goals also was a major factor in their contraceptive decision making processes. The primary implications for nursing that emerged from the study were to recognize the developmental level of the adolescent.
client, to facilitate trust with her, and to develop intellect and developmentally appropriate educational programs to ensure the best method of contraception is chosen.

Replication of the study with a larger, more diverse sample to refine and establish validity of the tool could further substantiate the findings.
This thesis is dedicated to my husband Melvin Martin.
Love bears all things, believes all things, endures all things. Love never fails.
I Corinthians 13
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Daddy, you are a wonderful father! Thank you for all your support, both emotional and financial.

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Chapter I

The Research Problem

Each year in the United States, approximately one million teenage girls become pregnant, and approximately 18% of all births nationwide are to adolescent mothers, producing one of the highest teenage pregnancy rates of any Western industrialized country (Flanagan & McGrath, 1995). The cost of adolescent pregnancy is enormous; the federal government spends $30 billion per year on social programs for teenage mothers and their babies (Gleick & Reed, 1994). The number of adolescent pregnancies can be decreased by increasing contraceptive utilization and ensuring that the contraceptive device is used properly (Fisher, Harris, Ranson, Paine-Andrews, & Pulliam, 1998).

The number of adolescents who are sexually active had increased dramatically over the last several years; a study by Kuiper and Miller (1997) found that the average age for first sexual experience was 14 years and that more than half of all females had sexual intercourse before the age of 16 years. As a result of sexual activity at such a young age, approximately 10% of adolescent females in the United States become pregnant each year (“Teen Pregnancy,” 1997). Title X of the Public Health Service Act of 1970 was designed to fund projects to reduce the number of unwanted and unplanned pregnancies by sponsoring clinics that provide counseling, contraceptive prescriptions, and STD screening. Since the inception of this act, the rate of teen pregnancy has risen dramatically, from 22.3 per 1000 unmarried girls in 1970 to 44.6 per unmarried girls in 1992 (Hsu, 1995). This staggering increase in adolescent pregnancies illustrates the need to understand the complexity of the phenomenon and ways to prevent the untimely
pregnancies; thus, the purpose of this study was to explore the factors related to adolescent contraceptive usage and compliance.

Establishment of the Problem

The consistent use of contraceptives can help to reduce the number of teenage mothers. The most frequently utilized method of birth control by teenagers is the oral contraceptive pill (OCP); however, compliance rates for the OCP are reported to be as poor, some estimate adherence levels to be as low as 10% (Hanna, 1997). Other methods of contraception available to teenagers include Depo-Provera, an injectable hormone that requires approximately 4 injections per year; Norplant, a hormone implant, implanted in the upper arm that is effective for approximately five years, the diaphragm, a cap that fits over the cervix during intercourse, and the Intrauterine Device (IUD) which is inserted into the uterus and provides contraception for roughly 10 years. These methods require visits to a healthcare provider’s office and in some cases require a prescription; however, they are very effective, approximately 98-99% when used correctly and consistently. There are some methods which, although less effective at approximately 74%, can be purchased over the counter; these methods include spermicidal foams and jellies and male condoms (Fu, Darroch, Haas, & Ranjit, 1999). Of all these methods, only the male condom offers protection from both pregnancy and sexually transmitted diseases (Langer & Zimmerman, 1994). This illustrates the great variety and number of contraceptive methods that are available to teenagers; however, despite the wide availability, adolescents still do not use contraception consistently (Green & Johnson, 1992).

Despite the widespread availability of contraceptive methods, many adolescents do not use them or do not use them correctly; Wiemann and Berenson (1996) pointed out that approximately 80% of teenage pregnancies occur because of failure to seek and use contraceptives correctly. Some reasons cited by adolescents as to why they do not use contraception include fear that certain contraceptive methods are dangerous, the wish to
wait until their relationships with their partners are “closer,” and the fear that their parents would discover their activities (Turner, 1991). Other adolescents stated that they wanted to get pregnant or did not mind getting pregnant as reasons they did not use any form of birth control (Walling, 1996). Green and Johnson (1992) found that of those who use contraception, fewer than 20% do so consistently and correctly. A major reason cited was simply forgetting to use the chosen method. When compared with other religions, affiliation with a fundamentalist church has also been shown to increase the likelihood of premarital sexual activity and decrease the likelihood of contraceptive use at first intercourse (Brewster, Cooksey, Guilkey, & Rindfuss, 1998).

Some adolescents have shown a willingness and ability to properly and consistently utilize contraception. A conventional lifestyle, as defined by valuing personal achievement and having a healthy lifestyle, is positively correlated with regular use of contraceptives (Hollander, 1996). Other factors found to be associated with contraceptive compliance include previous or suspected pregnancy, pregnancy of a friend, parents’ insistence, and health concerns, which include irregular menses or dysmenorrhea (Hewell & Andrews, 1996).

The attitudes of adolescents toward contraceptive use are influenced by multiple sources. Among a group of pregnant teens in Kentucky, many identified pregnancy during adolescence as normal as almost all had a close friend or relative, 84% had a best friend, who had become pregnant before the age of 18 years. These teens also stated that they did not feel comfortable discussing birth control with health care providers. Only 25% identified health care workers as knowledgeable sources regarding birth control (Henderson, 1995). The lack of comfort with health care providers was further demonstrated by a program in Philadelphia, Pennsylvania which drastically increased the amount of family planning services that were available to teenagers in community based health clinics. An evaluation of the program 30 months after implementation found no
increase in the number of clinic visits and no impact on the reproductive behaviors of adolescents in the area (Furstenberg & Hughes, 1995).

Although multiple sexuality education classes are in place in school systems across America, adolescents continue to demonstrate a lack of knowledge regarding the physiology of reproduction and the psychological outcomes of pregnancy. In a study conducted by Gordon (1996), the majority of 12th grade adolescents in a large inner city vocational high school were firm in their beliefs that pregnancy could only occur one day out of each month, one could not conceive while menstruating, pregnancy could not occur during the first sexual experience, and that teenagers could not contract the AIDS virus. A need for more education was further demonstrated by a 17 year old female who had just given birth to her first child. Although she had also had two previous abortions, she stopped using her oral contraceptive pill “because it didn’t seem that realistic to me that I could get pregnant again” (Gleick & Reed, 1994, p. 39).

Teenage child bearing has negative cultural consequences for both mother and child. The adolescent mother is more likely to be both socially and economically disadvantaged throughout her entire life. Those who have a child before the age of 18 years are less likely to complete their education, to be happily married, or to be employed, and they are more likely to rely on public assistance for support (Klepinger & Lundberg, 1995). One half of teen mothers go on welfare within one year of the birth of their child, and 77% are receiving welfare benefits within five years of their children’s births (Rodriguez & Moore, 1995). Pregnancy is the greatest single cause of dropping out of school for teens, and without a high school diploma, earning potential is severely limited (Brindis & Philliber, 1998). Children of adolescent parents often suffer from behavior problems, and the child’s academic successes are often influenced strongly by the mother’s educational and economic experiences (Hubbs-Tait & Osofsky, 1994). As the children of adolescent mothers themselves reach adolescence and young adulthood, it
has been demonstrated that they experience more frustration in school, lower achievement, and lack of economic success (Rodriguez & Moore, 1995).

Adolescent mothers are less able to offer their children continuity in parenting because they must balance the demands of maternal role attainment with the developmental tasks of normal adolescence, including constructing identity, achieving education, and making decision about a career. Adolescent motherhood is associated with higher levels of depression, which leads to lowered attentiveness to the needs of the child and the inability to provide constancy in disciplinary action. The adolescent mother often alternates between lax and harsh disciplinary techniques, parenting behaviors that have been linked to behavior problems in children (Hubbs-Tait & Osofsky, 1994).

Pregnancy can also affect the adolescent’s physical and mental states in a negative way. The teenager’s body is still involved in the process of maturation and may not be physically able to handle the stresses of carrying a pregnancy to term and giving birth. The adolescent usually is not psychologically prepared for the upheaval caused by becoming a parent at such a young age, and the birth of a child may add to an already stressful home situation and impede the evolution of relationships with family members (Trad, 1993).

Negative health outcomes for the infant include stillbirth, low birth weight, and other congenital anomalies (“ACOG Fact Sheet,” 1997). These children can also suffer negative psychological consequences because of the adolescent mother’s lack of parenting skills. The child an adolescent mother is at increased risk for abuse and neglect and to ultimately become part of the welfare system. They have been shown not to develop or progress at normal levels, perhaps related to the fact that their mothers are often less expressive and responsive to their needs and communicate less with them (Rodriguez & Moore, 1995).

In order to thoroughly understand adolescent contraceptive use, it is necessary to evaluate the adolescent thought and decision making processes, as they are quite different
from those of the adult. Saltz & Perry (1994) discuss the concept of the “personal fable.” The personal fable plays a major role in the sexual decision making process because the adolescent sees himself or herself as invulnerable to harm. Teenagers often seek immediate gratification without regard to consequences; they have an inability to plan ahead and anticipate the consequences of their behavior (Hewell & Andrews, 1996).

Adolescence is an egocentric time of development when the teenager is inwardly focused. The thought and decision making processes are self-centered and heavily peer-oriented. Many adolescents are not able to function at the formal operational level; they think very concretely, and have the most difficulty with tasks requiring abstract thinking, such as those that involve planning, establishing cause and effect relationships, and anticipating future results or consequences of current actions (Flanagan & McGrath, 1995).

During the period of transition to adulthood, the thought process changes in predictable ways. As adolescents reach the transition to adulthood, they begin to reflect on and accept the consequences of their previous actions. They also develop a personal belief and value system independent of parents or other influences (Arnett, 1997). As adolescent women reach the period of young adulthood and begin to reflect on previous behavior, they may be able to offer a deeper insight into the adolescent contraceptive phenomenon.

**Significance to Nursing**

Identification of factors related to adolescent contraceptive use has considerable significance for the nursing profession. The American Nurses Association defined nursing as “the diagnosis and treatment of human responses to actual or potential health problems” (ANA, 1980, p. 5). The findings of this study can be utilized to fulfill this definition in several areas of nursing, including practice, education, research, and theory.
As a primary care provider, the nurse practitioner is in the unique position to provide intense individual counseling to the adolescent. Nurse practitioners must be aware of the factors that affect contraceptive compliance in order to effectively strengthen treatment. Factors that enhance compliance should be included in teaching programs and encouraged. Reasons for noncompliance should be identified and dealt with. This study aids in the identification of both sets of factors and further aids the nurse practitioner in the treatment of the adolescent female in regards to family planning. The nurse practitioner needs to work toward increasing the confidence of adolescents in health care providers and encourage them to seek contraceptive information from reliable sources.

The decision making process of the adolescent must be taken into account when developing programs to aid in the prevention of teen pregnancy. The nurse practitioner must develop interventions that are on the level of the adolescent’s cognitive ability. With the understanding that cognitive ability develops with age, the nurse practitioner should not treat all adolescents the same (Gordon, 1996). Adolescence is a time of rapid change and intense stress. Interventions must be specific and appropriate to be effective. Information gathered by this study can be used to develop educational processes that can be used with clients, develop peer groups for clients, and establish standards of care for the nurse practitioner.

The findings of this study contribute to the development of nursing curricula at both the undergraduate and graduate levels to give nurses insight into the adolescent contraceptive and pregnancy phenomena. Nursing curricula developed with the findings of this study would emphasize the role of the nurse or nurse practitioner in encouraging consistent use of contraception, and in ensuring that interventions are based on the developmental stage of the adolescent, taking into account the adolescent thought processes. Sexual activity among adolescents occurs at increasingly younger ages, and because of this, the roles of nurses and nurse practitioners are evolving. Interventions and
teaching provided to the adolescent are different based on the age and developmental stage of the individual. Nursing education should emphasize this fact, and the reality that in order to prevent rising numbers of teenage mothers contraception must be encouraged.

This study contributes to nursing research in the area of adolescent pregnancy prevention because limited research has been done using the population of young adult women. Involvement in empirical research is important for advanced practice nurses. Nursing standards of practice evolve and change; involvement in research aids in this change. Not only does participation in research make the advanced practice nurse aware of his or her evolving practice but allows them to participate in making change. This study serves to advance Parse's Theory Health as of Human Becoming as an appropriate framework for research in this area, in particular the influences of the environment on the choices that are made with regards to contraception use, and the fact the contraceptive choice can be based on an individual personal value system.

Theoretical Framework

The theoretical framework that guided this research was Rosemarie Parse's Theory of Health as Human Becoming. The most essential concept of this theory is that humans are in constant interaction with the environment and through this interaction are cocreating health (Parse, 1998). The Theory Health as of Human Becoming provided an excellent foundation for inquiry into adolescent contraceptive compliance as it provided the fundamental idea that contraceptive use and compliance among adolescents is multifaceted and influenced by very diverse factors. There are three main principles identified in the Health as Human Becoming theory: meaning, rhythmicity, and transcendence (Parse, 1998). Each principle can be applied to the adolescent who is choosing among contraceptives and who is making decisions about adherence to the prescribed contraceptive regimen.
Meaning, the first principle, refers to the process by which each individual, throughout his or her lifetime, assigns meaning to every situation that is encountered, from the most common to the most extraordinary. Assigning meaning to situations allows individuals to develop a personal value system and make choices based on this value system (Bunting, 1993). This study sought to determine reasons for adolescent contraceptive choice and compliance, which can be based on the personal value system that has been developed.

The second principle, rhythmicity, describes a person’s relationship with others and with the environment. The individual is constantly making choices that lead him in one direction or another. The decision to proceed in one direction and not another causes the individual to rearrange his or her relationships with others and the environment, and through the reorganization the individual learns about himself (Bunting, 1993). Man is an open being who freely and willingly chooses among options and bears ultimate responsibility for his decisions (Parse 1998). This study sought to determine if relationships with the environment and with others impacts contraceptive choice and compliance and accountability for those choices among adolescents.

The third principle, transcendence, refers to the ability of persons to reach out beyond self into the future, seeing possibilities and moving toward them (Bunting, 1993). There is a process to integrate the familiar with the unfamiliar; in this process new discoveries emerge and individual decisions are made based on the newly discovered ideas. These decisions are predictive of who one is and who one will become (Parse, 1998). As adolescents reach the transition to young adulthood and embark upon the integration and discovery process, they begin to make decisions and to think differently from the period of adolescence. This study utilized the population of young adult women based on this principle. As familiar ideas are merged with unfamiliar ones and as new discoveries about life are made, young adult women may be able to offer a deeper insight into the contraceptive usage phenomenon.
Parse’s Theory of Health as Human Becoming presents nursing as a human science, and nurses should assist the client in cocreating his or her own health by guiding choices. The cocreating of health results in the creation of situations that are unique to the individual. In order to guide choices, nurses must understand that human beings have meaning, feeling, communication, and values that are individualized, and nurses must view situations from the client’s perspective (Parse, 1998). The decision to become sexually active and to utilize or not utilize effective contraception is multifactorial and unique to each person, and for this reason Parse’s Theory of Human Becoming provided an appropriate theoretical framework for this research.

Assumptions

For the purposes of this study, the following assumptions were made:


2. Young adult women can accurately recall contraceptive practices of their adolescence and why they were chosen.

3. Contraceptive use and compliance is based on the following principles:
   a. Contraceptive choice is based on some degree of interaction between the environment and other people.
   b. While adolescents, young adult women attached varying degrees of significance to common situations, and these meanings could have influenced contraceptive use and compliance.

Statement of the Problem

A wealth of research has been conducted with respect to adolescent contraceptive practices; however, in the United States the pregnancy rate for this age group remains one of the highest in the industrialized world (Mitchell-DiCenso & Thomas, 1997). The
teenagers of the recent decade who have now reached adulthood may be able to offer a fresh and unique insight into the phenomena, as they may answer more thoughtfully and honestly than those who are currently adolescents. Thus, the problem for this study was to determine reasons for adolescent contraceptive choice and compliance as identified by young adult women.

Research Question

The research questions that guided this research were:

1. What contraceptive practices do young adult women report they used during their adolescent years?
2. What rationales do young adult women report for the contraceptive choices that were made during their adolescent years?

Definition of Terms

For this study, the following terms were defined:

1. Contraceptive Practices

   Theoretical: Contraceptive practices are actions that were done or performed to prevent pregnancy (“Student Reference Library,” 1996).

   Operational: In this study contraceptive practices were defined as actions identified by young adult women that were done or performed during their adolescent years with the goal of pregnancy prevention. They were determined by Martin’s Adolescent Contraception Questionnaire.

2. Young Adult Women

   Theoretical: Young adult women are females who are in the early stages of the period after maturity has been attained (“Student Reference Library,” 1996).

   Operational: In this study young adult women were defined as those females who fall between the ages of 18 and 28 years.
3. **Adolescent Years**

   **Theoretical:** Adolescent years consist of the period of time between puberty and adulthood ("Student Reference Library," 1996).

   **Operational:** In this study adolescent years were defined as the period of time during which a person was between the ages of 12 and 18 years.

4. **Rationales**

   **Theoretical:** Rationales are fundamental reasons, causes, or motives for action ("Student Reference Library," 1996).

   **Operational:** In this study rationales were defined as the reasons, causes, or motives for action given by young adult women as to why they chose a particular method of contraception over others during their adolescent years. They were determined by answers to Martin’s Adolescent Contraception Questionnaire.
Chapter II
Review of the Literature

A review of the literature was conducted to determine the status of current research regarding adolescent pregnancy and contraceptive use. It was discovered that a vast amount of research had been done in the area; various approaches had been utilized to explain the phenomenon of adolescent pregnancy and the factors that influence contraceptive use. Along with the consequences of adolescent pregnancy, adolescent contraceptive behavior and the adolescent’s psychological development and decision-making skills also were examined in order to develop more prudent interventions that can be utilized to decrease the rate of pregnancy among this population.

Consequences of Adolescent Pregnancy

The effects of noncompliance with contraception and resulting teenage pregnancy were examined in a study by Hubbs-Tait and Osofsky (1994). The researchers used a longitudinal approach to examine the relationship between the parenting practices of adolescent mothers through the periods of infancy and early childhood and the behavior of their children as preschoolers, with emphasis on detecting behavior problems and positive socioemotional outcomes. The study was based on a new theoretical framework of adolescent parenting that takes into account the adolescent mother’s own continuing development with the theory of attachment. The researchers hypothesized that disorganized attachment between the adolescent mother and her child would be related to behavior problems and organized attachment would be correlated with social competence. The second hypothesis was that variations in adolescent maternal depression
would explain variations in the behavior problems in their children. A third hypothesis was that variations in self esteem among the adolescent mothers would predict social competence in their children.

The subjects were 44 children (24 girls and 20 boys) and their adolescent mothers who ranged in age from 14 to 18 years when the child was born. Inclusion criteria for the study were participation in study evaluations by mother and child when the child was 13 months old and 54 months old, completion of the Strange Situation when the child was 13 months old, and completion of self-report measures of depression and self-esteem by mothers at both points in time.

When the child was 13 months of age data regarding attachment were collected using Ainsworth’s Strange Situation in which mother and child were separated and then reunited twice. Videotapes of the reunions were coded for primary attachment as secure, resistant, or avoidant and organized or disorganized. Maternal depression was assessed by the Center for Epidemiologic Studies Depression Scale, and the Index of Self Esteem assessed maternal self esteem. At the age of 54 months, the children’s behavior problems and social competence skills were assessed by the mother’s responses to the Child Behavior Checklist. The social competence skills were found by measuring two areas, social skills and friends.

Hubbs-Tait and Osofsky (1994) found that insecure or disorganized maternal-child attachment explained 14% of the variance in externalizing behavior problems and 16% of the variance in internalizing behavior problems, thus supporting the first hypothesis. Maternal depression explained an additional 13% of the variance of externalizing behavior problems and 15% of the incremental variance in internalizing behavior problems, thus supporting hypothesis number two. Maternal self-esteem did not explain any of the behavior problems. Maternal self-esteem accounted for 19% of the incremental variance in the friends score, but was not significant in determining the social skills score, thus hypothesis 3 was only partially supported. Maternal-child attachment
and maternal depression were not significant predictors of the friends or social skills scores.

Hubbs-Tait and Osofsky (1994) concluded that interventions to improve the life of the adolescent mother might improve her child's life as well. Programs to promote secure, organized mother child relationships, increase maternal self-esteem, and decrease maternal depression are recommended as they are deemed to foster fewer behavior problems and closer friendships among children.

Hubbs-Tait and Osofsky (1994) recommended further research in this area to assess causal relationships between attachment, maternal depression, and maternal self-esteem and between preschool children's social competence and behavior problems. Further recommendations are made for a replication of the study with different measures of childhood friendship in order to verify the effect of maternal self-esteem. The study contributes to the current study by demonstrating the negative consequences of adolescent pregnancy and the need for its prevention.

Another study by Klepinger and Lundberg (1995) examined adolescent fertility and its effects on the educational attainment of young women. The researchers believed that adolescents who became mothers placed themselves at greater risk for social and economic disadvantage throughout their entire lifetimes. The researchers further projected that adolescent mothers would be less likely to complete their educations, and thus less likely to be employed, to earn high wages, or to be happily married, and they were more likely to have large families and to rely on welfare for support.

The sample consisted of 1445 Caucasians, 906 African Americans, and 444 Hispanics who were interviewed as part of The National Longitudinal Survey of Youth. The subjects were interviewed annually from 1979 until 1991. Educational attainment was measured in completed years of schooling at the time the subject turned 25 years of age. Comparisons were made among females who gave birth to their first child before the age of 18 years, between the ages of 18 and 19 years, and after the age of 20 years.
Klepinger and Lundberg (1995) found that there was a positive relationship between age at first birth and educational attainment. Of the Caucasians who had a child before the age of 18 years, only 29% completed high school with an average of 10.7 years of schooling completed, 60% of those who did not have a child until age 18 years completed high school and had 11.5 average years of schooling, and 92% of those whose first child was born after the age of 20 years completed high school and had 13.5 average years of schooling. Among African Americans, 50% of those whose first child was born before the age of 18 years, 72% of those who had a child between the ages of 18 and 19 years and 90% of those whose first child was not born until the age of 20 years completed high school. The average number of years of education completed was 11.4, 12.0, and 13.3 respectively. Among the Hispanic population studies, 22% completed high school if their first child was born before the age of 18 years averaging 9.7 years of schooling completed, 55% completed high school if their first child was born between the ages of 18 and 19 years, averaging 11.3 years of completed schooling, and if the first child was not born until after the age of 20 years, 76% completed high school with an average of 12.4 years of schooling completed. Young women who became mothers before the age of 20 were approximately five times less likely to attend college than those who did not bear children until after the age of 20 years.

Klepinger and Lundberg (1995) concluded that early child bearing has large negative effects on young women’s years of schooling. Public policies and programs that aim to reduce teenage pregnancy and childbearing would also increase the educational attainment of these women and improve their chances for economic self-sufficiency. The study lends itself to the current research by demonstrating the need to decrease the number of adolescents who become parents, which can be done by developing intervention programs utilizing the knowledge gained from the current research in the rationales for adolescent contraceptive choices.
Contraceptive Behavior

A study by Furstenberg and Hughes (1995) attempted to identify what effect, if any, an expansion of family planning clinic services would have on the contraceptive practices of urban adolescents. The researchers postulated that an increase in clinic services for teenagers would have a positive effect on their attitudes toward contraception and their knowledge and use of clinic services and would aid in decreasing the teenage pregnancy rate.

A longitudinal, trend design was utilized. Data were collected at two points in time, immediately before the implementation of the service expansion and again 30 months after the clinics increased their services. Both samples were collected in the same manner. The participants were selected randomly from a phone book that listed phone numbers by address rather than name. Five groups were established, four experimental and one control. The experimental groups were drawn from catchment areas that surrounded each clinic, and the control group was selected from the city as a whole. The first sample consisted of 1256 teenagers equally distributed among the five groups; the second consisted of 1181 teens, again equally distributed among the five groups.

Multivariate logistic regression was used to standardize the samples by pooling the four experimental groups into one, creating indicator variables for each area and sample, and for each outcome, estimating a logistic regression that included a set of control variables and an interaction term for area and sample as covariates. Initial contact was made by telephone, and after ascertaining that an eligible adolescent lived there, a parental interview was conducted to describe the research and obtain permission for the teenagers to participate. After consent was obtained, data were gathered from the teens in a researcher designed guided interview.

Furstenberg and Hughes (1995) found that after implementation of clinic services, teenagers were more likely to have heard of a family planning clinic, but were less likely to have visited one. The percentage of teens that went to a family planning clinic
decreased from 25% to 18% in the experimental group and from 18% to 17% in the control group. No change was detected in the percentage of teenagers who claimed to be sexually active. In the experimental group, those who used contraception increased from 67% to 73% while contraceptive use decreased from 76% to 68% in the control group. The proportion of adolescent females who became pregnant remained stable in the experimental group at 3%, while the pregnancy rate increased in the control group from 2% to 4%.

Furstenberg and Hughes (1995) concluded that the increased presence of family planning clinics had no impact on the knowledge, attitudes, and reproductive behaviors of adolescents. Although the trend toward contraceptive use was favorable in the catchment areas, there was no correlating increase in clinic visits or the use of clinic services, therefore it cannot be concluded that the increase in family planning services produced the change in contraceptive use. Furstenberg and Hughes (1995) pointed out that expanding the availability of services does not create an increase in the use of services, thus an increase in the availability of free contraceptives would not encourage their use.

Recommendations to increase demand for family planning services included implementing an intense public health campaign and opening school linked health centers. The researchers suggested a replication of the study avoiding some of the limitations of the research, including taking into account that the clinics could serve people from outside the catchment areas that surround them, and the media campaign that accompanied the expansion of services was city wide and could have altered behaviors in an area that was not served by a clinic. The findings from Furstenberg and Hughes (1995) clearly illustrate that adolescent female contraceptive choices and the variables that influenced them remain poorly understood by those who seek to intervene.

In a similar study by Brindis and Starbuck-Morales (1994), conducted at roughly the same time frame, school based family planning programs and the characteristics associated with contraceptive use among the adolescents who attend them were
investigated. The researchers believed that school based clinics offered many advantages over community based clinics and private offices, including providing ready access for teens, not requiring absence from school or work, and providing both physical and mental health services. The researchers hypothesized that adolescents with an increased frequency of clinic visits would have a higher tendency toward contraceptive compliance, and that, independent of visit frequency, a greater compliance rate would be associated with an intense follow-up program, receipt of services in a clinic that dispensed its own contraceptives, health education and counseling by a trained health educator, and receipt of medical or counseling services in conjunction with family planning services.

Brindis and Starbuck-Morales (1994) utilized a retrospective study design. The sample consisted of 201 adolescent females who received services at one of four high school based health care clinics in the state of California. A chart review was conducted to obtain the data. A chart was included in the review if it contained family planning information documented over at least a three month period. Data collected included whether or not the client was sexually active, and if so, what method of contraception was used and with what consistency it was used. A contraceptive use ration was established for each client by dividing the number of months a client consistently used a contraceptive method by the number of months the client participated in the school’s family planning services. Then, a stepwise regression with backward elimination was used to evaluate the relationship between each variable and the contraceptive use ratio.

Brindis and Starbuck-Morales (1994) found that adolescent females with a higher number of visits to the family planning program were more likely to consistently use contraception (p<.01). Conversely, an intense follow-up program, as defined by setting a follow-up visit less than one month from a previous clinic visit, was associated with a decrease in consistent use (p=.03). No significant relationship was discovered between contraceptive compliance and the availability of contraceptives on site at the clinic, the
receipt of additional medical or counseling services, or the type of health education services that were available.

Brindis and Starbuck-Morales (1994) concluded that school based health centers should develop more intense programs to reach adolescents and guide them toward more consistent contraceptive use. They recommended developing a set of screening questions as a tool to identify those clients who need enhanced and intense follow-up care and those who would benefit from a more relaxed atmosphere during follow-up.

The researchers recommended further research in order to determine what specific qualities in a family planning program would increase contraceptive compliance among adolescents. Additionally, more detailed information regarding contraceptive choices was needed along with a more in depth study to compare traditional family planning education with a more enhanced program. The study supported the current study by identifying the need to develop more programs and interventions to guide the adolescent toward more consistent contraceptive use. The current researcher sought to understand the choice of contraception and the rationales for those choices.

A comparable study by Mitchell-DiCenso and Thomas (1997) evaluated an educational program designed to prevent adolescent pregnancy. The researchers implemented an intense sex education program called the McMaster Teen Program that was designed to decrease the rate of sexual intercourse, improve contraceptive use, and decrease the incidence of pregnancy in adolescents less than 16 years of age. The researchers hypothesized that this intensive educational program would have a significant impact on the sexual behavior of the adolescents who attended.

Mitchell-DiCenso and Thomas (1997) utilized an experimental study design with a pretest and posttest. The pretest was given immediately before the implementation of the educational programs, and the posttest evaluation was done 4 years later. Twenty-one public schools in a large, industrial city were stratified into two groups, those with at least 200 students in grades seven and eight and those with less than 200 students. Using
balanced allocation and a table of random numbers, these schools were then randomly assigned to either the experimental group or the control group. Those in the experimental group, 11 schools, were given the intense McMasters Teen Program curriculum, and those in the control group, 10 schools, received the conventional sexual education curriculum. The total number of students in the experimental group was 2309, and those in the control group numbered 1843. Those in the McMasters Teen Program were given intense education in 272 small groups led by specially trained tutors. The program consisted of 10 one hour sessions. Those who were taught using the standard curriculum received information in a lecture format during health class.

Mitchell-DiCenso and Thomas (1997) found that of those who reported being sexually active at the time of the pretest, 42.2% of the experimental group females and 46.7% of the control group females reported an improvement in birth control use at the time of the posttest, showing no significant difference between the two groups. In both the experimental and control groups educational aspirations beyond high school were significantly associated with a decrease in sexual activity, and low responsiveness to external pressures predicted a more consistent pattern of contraceptive use. There were no significant differences in the experimental and control groups.

Mitchell Di-Cenzo and Thomas (1997) concluded that, consistent with other studies, sex education does not promote sexual activity. The McMasters Teen Program was determined not to have effect on sexual activity of adolescents. Possible explanations to this included the length of the program, it may have been too short, and there were no booster sessions in the time after the program ended until the posttest evaluation. Another area of weakness in the program was its content. In accordance with Board of Education guidelines, information regarding contraception was omitted from the program, and students were referred to the school nurse for data and advice. Those who needed this education may have been reluctant to seek it; it may have been effective if presented as part of the educational program.
Mitchell Di-Censo and Thomas (1997) recommended further research in order to design, implement, and evaluate unique interventions to combat the problem of adolescent pregnancy. The recommendation was made to avoid the limitations of the study, which included the lack of a true no treatment control group, untested validity of self reported sensitive data, and loss of follow up of some of the study participants. The study is pertinent to the current study by demonstrating the need for further research into the issues surrounding adolescent pregnancy and contraceptive choices.

A study by Brewster, Cooksey, Guilkey, and Rindfuss (1998) sought to determine the impact of religious affiliation on the sexual and contraceptive behaviors of adolescent women. The researchers surmised that religious organizations, even though they had become more visible, had become less effective in transmitting their values to adolescents, and thus would have no effect on adolescent pregnancy rates.

Brewster, et. al. (1998) employed a retrospective study design. Data were drawn from Cycles III and IV of the National Survey of Family Growth, the two most recent surveys in a series of national fertility surveys. Data were collected regarding religious denominational affiliation, categorized as Catholic, Christian Fundamentalists (Adventist, Apostolic, Bible, Free, Fundamental, Gospel, Holiness, Jehovah’s Witness, Mission, Missionary, Nazarene, Church of God, Pentecostal, and Sanctified), and all others, referred to as the residual category and which included those who practiced Protestant religions and those who were Jewish, and three aspects of adolescent sexual behavior and contraceptive use, including the timing of first sexual intercourse, what, if any, contraceptive was used during first intercourse, and what is the current choice of contraceptive. Both cycles consisted of national samples of women between the ages of 15 and 44 years. Data for Cycle III were collected between August 1982 and February 1983, and data for Cycle IV were obtained from January to August 1988. Data were obtained only from the women between the ages of 15 and 23 years and pertained to the
previous 4 year period when they were between the ages of 11 and 19 years. The changes that took place between Cycles III and IV were evaluated.

Brewster, et. al. (1998) found that among Caucasians, Catholics and members of the residual category were less likely to engage in sexual intercourse. Christian Fundamentalists were sizably more likely to engage in sexual activity; however, among African-Americans, Christian Fundamentalists were 50% more likely to delay sexual activity than were their Catholic and residual category counterparts. Denomination also influenced choice of contraception at first intercourse. Catholics and Christian Fundamentalists were less likely than members of the residual category to use no method of contraception at first intercourse. The majority of African-American respondents did not use any contraceptive method at first intercourse. Brewster, et. al. (1998) also found that religious denomination had no effect on current contraceptive use among teenagers.

Brewster, et. al. (1998) concluded that there is great potential importance of denominational membership for adolescent sexual behavior. Religion is most influential on the timing of first sexual intercourse and on initial choice of contraception, but as adolescents gain more experience regarding sexual activity, other factors weigh more heavily in the contraceptive decision making process.

Brewster, et. al. (1998) recommended future research designed to look more directly at the attitudes and beliefs that individual members of the various religions hold, and to measure the beliefs prospectively so that they can be placed prior to the behaviors being investigated. Other factors that influence contraceptive choice should also be investigated. The current study answers the recommendation by investigating the phenomena of adolescent contraceptive decision making.

In another study regarding adolescent contraception, Hewell and Andrews (1996), sought to determine rates of reliable contraceptive compliance in a group of adolescent females who either had an elective abortion or a negative pregnancy test. The researchers postulated that having terminated a pregnancy or being suspicious of pregnancy would
make teenagers more likely to consistently use reliable contraception. The research questions that guided the study included the following: Do adolescent females choose reliable contraception following termination of pregnancy or a negative pregnancy test? and what method of contraception do adolescent females use and do they consistently use this method? Reliable contraception was defined as a method that is 90% effective in preventing pregnancy when used correctly, and unreliable methods are defined as those less than 90% effective, even when used correctly.

Hewell and Andrews (1996) utilized a retrospective study design. The sample consisted of 64 female adolescents, ranging in age from 14 to 19 years, who attended one of two family planning clinics, one in an urban setting and one in a suburban setting. The sample was divided into two groups; one group consisted of those who had a negative pregnancy test, and the other was made up of those who had an elective termination of pregnancy. The sample was selected by convenience, and a chart review was conducted to obtain the data. Assignment of a number to each chart rather than a name ensured anonymity. Data collected included history of pregnancy tests, pregnancy, elective termination of pregnancy, and contraceptive history. The data were examined using descriptive statistics to determine the percentage of teenagers who, following a negative pregnancy test or elective termination of pregnancy, chose a reliable form of contraception and consistently used the chosen method.

Hewell and Andrews (1996) found that of those in the group who had an elective termination of pregnancy, 93.1% chose a reliable form of contraception. Of those who had a negative pregnancy test, 60% subsequently chose a reliable contraceptive. At the follow-up clinic visit of those who had an elective abortion, 27.6% were still using contraception and of these, only 10.3% were using reliable contraception. Similarly, in the group who had a negative pregnancy test, 57.2% were still using contraception at the follow-up clinic visit, but only 5.8% were using a reliable form.
Hewell and Andrews (1996) concluded that previous sexual experience made no lasting impact on teenagers in relation to their future contraceptive choices. Adolescent decision making regarding use of contraception is multifactorial and ongoing; their decision to use contraception may be different at time of intercourse than when in a family planning clinic. Hewell and Andrews (1996) inferred that adolescent decision making regarding contraceptive choice is closely related to their perception of pregnancy risk; adolescents often estimate their risks of pregnancy to be much lower than they are in actuality.

The recommendation was made to extensively question adolescents at each clinic visit regarding contraception questions and concerns. Hewell and Andrews (1996) also made the recommendation to replicate the study avoiding the limitations that are present, including small sample size and omission of the time frame between clinic visits. A prospective rather than retrospective study was recommended along with further development of theory regarding adolescent contraceptive decision making. The study supports the conduction of the current study by demonstrating that the adolescent contraceptive decision making process is multifactorial and needs further research to obtain understanding.

**Adolescent Psychological Development and Decision Making Skills**

The adolescent decision making process is different from that of the adult, and comprehension of this process is necessary to understand the reasons behind their contraceptive choices. A study by Gordon (1996) sought to present a broad theory of adolescent decision making and apply it to the prevention of early pregnancy. The theory of adolescent decision making was based on three sets of factors, cognitive development, social and psychological factors operating on the individual and small group level, and cultural and societal factors operating on the large scale. The researcher projected that
focusing on all three aspects would create a greater insight into the adolescent decision making process and thus aid in programs to prevent adolescent pregnancy.

Data were gathered on 10 days over a 4 month period at a large, inner-city vocational high school. The students came predominately from a low income neighborhood and were 43% Latino, 29% African American, and 27% Caucasian. Data were collected through interviews with school staff and teachers, daily observation of classes, individual counseling sessions with students, and short conversations with students, teachers, and staff. The data were organized into three categories, cognitive, social and psychological, and cultural and societal.

Gordon (1996) found that ninth grade students were thinking almost exclusively at the concrete level, and very few of the twelfth graders were able to think and reason at a formal operational level. The researcher estimated the language ability of the pregnant adolescents in the school to be at approximately fifth grade level. Socially, a strong degree of self focus was identified among all students. Some of the females interviewed stated that they wanted to become pregnant for very egocentric reasons. Culture and society background was identified as a strong influence on the students.

Gordon (1996) concluded that the adolescent thought and decision making process should be taken into account when planning education programs to prevent early pregnancy. Educators should realize that there are those adolescents whose thought process leads them to see pregnancy as desirable and educational programs that take this into account would be considerably more effective. Programs should include alternatives to pregnancy and information on contraceptives; also information should be presented on a concrete level and be culturally sensitive. The study lends credence to the current study by demonstrating some of the differences between the adolescent and adult decision making process and the need to take them into account when assisting adolescents in family planning.
Green and Johnson (1992) examined the relationship between adolescent contraceptive use and cognitive capacity, cognitive egocentrism, and experience factors. In the descriptive, correlational study, the researchers hypothesized that higher level cognitive functioning would be positively related to a higher level of decision making and that higher levels of cognitive egocentrism and nonuse of contraceptives (nonfamiliarity) would be negatively related to higher levels of decision making.

The subjects were 50 unmarried females between the ages of 14 and 19 years who were recruited from an outpatient medical clinic. All subjects were sexually active; 20 of the subjects were not users of contraceptives, 8 were seeking a contraceptive prescription at that clinic visit, and the remaining 22 were contraceptive users. None of the subjects had ever been pregnant. After consent was obtained, the subjects were given a series of tests including a displaced volume questionnaire, a pun requiring an explanation of meaning, an imaginary audience scale, with subscales of the transient self and the abiding self, and a personal fable questionnaire which measured rejection of rules, impulsivity, egocentrism, uniqueness, magical thinking, and independence. These tests were used to establish cognitive capacity and cognitive egocentrism. The subjects were then given a decision making problem focusing on contraception. MANOVA were used to assess the probability of type I error, and significant racial differences (p<.005) were found for four of the cognitive egocentrism values, therefore race was added as a predictor value. Pearson product-moment correlation analyses were applied to assess relationships among all variables.

Green and Johnson (1992) found that the three decision making variables that most often correlated with the cognitive capacity and cognitive egocentrism variables were how many variables the subject used in solving the problem, the number of matches between the subject’s and experimenter’s variables, and whether the subject used the variables listed by the experimenter. The pun was the only cognitive capacity variable that correlated significantly with the decision making variables. Egocentrism, magical
thinking, and transient self were the cognitive egocentrism variables that most often correlated with the decision making variables. Use of contraceptives (familiarity with them) did not correlate significantly with any of the decision making variables.

Green and Johnson (1992) concluded that as a competence variable, higher level cognitive ability is related to higher performance in decision making, supporting one of their hypotheses. Supporting another of their hypotheses, Green and Johnson (1992) also concluded that higher levels of cognitive egocentrism limited performance in decision making, as the correlation with the cognitive egocentrism variables and the decision making variables was negative ($r=-0.22$). The level of experience with use of contraceptives was not found to be significant in predicting decision making performance.

Green and Johnson (1992) recommended future research to ascertain if the ability to comprehend a pun is specifically related to interpersonal decision making in another arena, and what are other cognitive skills related to interpersonal decision making and do they add to or replace pun as a predictive factor. Research was also recommended to determine if cognitive egocentrism factors are related to interpersonal decision making in another problem arena, and what other performance influencing factors are related to contraceptive decision making. The study lends itself to the current study by establishing the need for further research into the influencing factors related to contraceptive decision making.

The psychological development of adolescents can affect their transition to the role of mother. This concept was examined by Flanagan and McGrath (1995). The researchers sought to determine whether the egocentric, peer-oriented thought processes of the adolescent period might interfere with the developmental tasks of maternal role attainment.

In the descriptive study, both qualitative and quantitative research methods were used to complement each other. Qualitative methods were used to establish a hypothesis
of how an adolescent female experiences mothering in relation to her own cognitive development, then quantitative methods were used to test the association between responses on self-related and mother-related questions.

In the qualitative portion of the study, grounded theory was utilized. Interviews and focus groups were conducted with 42 young mothers. These were analyzed over a two year period. Five categories of adolescent self development and motherhood emerged. The description of self ranged from very concrete physical characteristics to abstract personality traits; description of goals ranged from fantastic ideas to reality based specific goals. The discussion of how life had changed since the birth of the child brought responses ranging from egocentric to an appreciation of increased responsibility. The description of the qualities of a mother ranged from concrete task-oriented responses to abstract emotional ideas, and the description of the children extended from the very concrete physical characteristics to very abstract descriptions of intellectual ability. Through the research, the researchers generated the hypothesis that an adolescent’s conceptualization of motherhood and her maternal role would correlate with her individual cognitive and psychosocial development.

Quantitative research methods were used to validate this hypothesis and the themes that had emerged. Twenty-five adolescent mothers were interviewed using five questions derived from the qualitative study. Two of these questions were self-related and three were mother-related. Responses were scored on a five point scale of developmental complexity by coders unfamiliar with the study hypothesis. Correlational analysis was utilized to ascertain what relationship existed between the self-related questions and the mother-related questions, and then a simple regression plot was constructed to illustrate the data.

Flanagan and McGrath (1995) found that there was a positive correlation between the responses to the self-related questions and the developmental complexity of the responses to the mother related questions (R=.81), but the response scores were not
significantly correlated with the mother’s chronological ages. Flanagan and McGrath (1995) concluded that motherhood does not imply adulthood nor does motherhood hasten adolescent psychological development. An adolescent mother’s chronological age provides an index regarding developmental and psychological abilities but age alone offers very limited information because of the great differences among individuals. These results and conclusions were consistent with the hypothesis.

Flanagan and McGrath (1995) recommended future research be conducted to identify any cultural differences in maternal role development among the adolescent population. They also recommended study of a broader age group, to determine if the same developmental functioning exists into adulthood. The study supports the purpose of the current study by demonstrating the uniqueness of the adolescent cognitive process, and the need to take this process under consideration when analyzing contraceptive choice and use.

Summary

Pregnancy and child bearing during the adolescent years have been shown to have negative effects both on mother and child. Children of adolescent mothers are more likely to experience behavior problems as they become older, and women who bear children while teenagers have lower educational attainment than those who wait to become mothers. The lower educational attainment leads to decreased earning potential and income and a greater reliance on public assistance.

Although contraception is safe, effective, and readily available for adolescents, they often fail to utilize it properly. Some reasons reported for not consistently using contraception or not using it at all included the erroneous belief that teenagers cannot become pregnant, the desire to wait until their relationships with significant others were closer, and the fear of side effects. Possible methods to increase compliance with
contraception include an intensive education and counseling program and expanding family planning clinic services to be more inclusive of teenagers.

The adolescent psychological development and decision making processes are quite different from that of the adult and comprehension of these is necessary to understand the reasons behind their contraceptive choices. Contraceptive choices are influenced by cognitive capacity, cognitive egocentrism, and experience factors. Every effort should be made to assist the adolescent to make a contraceptive choice that is individualized and to aid the adolescent to determine methods that will result in compliance with the chosen method.
Chapter III
The Method

The researcher sought to discover the contraceptive practices and rationales for those practices, as reflected upon by young adult women. This study was guided by the two research questions that addressed contraceptive practices and rationales for those practices that young adult women reported they used during their adolescent years. In this chapter, a description of the research methods utilized to conduct this study is presented. The design of the study, population, sample, and setting along with the instrumentation and methods of data collection also will be described in this chapter.

Design of the Study

A descriptive study design was utilized to examine reasons for contraceptive use and compliance in the adolescent population. Polit and Hungler (1995) define descriptive research as that which has as its main objective “the accurate portrayal of the characteristics of individuals, situations, or groups and the frequency with which certain phenomena occur,” (p. 640). The design was appropriate because the researcher sought to describe the contraceptive practices and the rationales of those practices among adolescents and the frequency they occurred.

The variables of interest were the choice of contraceptive method made by adolescent females and the rationales expressed as to why the particular contraceptive method was chosen. These variables were measured using Martin’s Contraception Questionnaire. The control variables were the gender and age of the participants. Subjects were females between the ages of 18 and 28 years. The extraneous variables
with potential influence in this study included the truthfulness of the subjects in responding to the questionnaire, the mental capacity of the subjects, and time constraints perceived by the subjects.

Setting, Population, and Sample

The study occurred in a city in the Southeastern United States that had a population of approximately 650,000. The setting was the nursing department in a state university with an enrollment of 22,000 that included students from 50 states and 22 foreign counties. The nursing department had approximately 250 students enrolled.

The population consisted of junior and senior female students between the ages of 18 and 28 years who were enrolled in the nursing program. This population was chosen because nursing students are typically serious students, have an awareness of health issues, and may reflect more intensely and deeply on their answers when compared with other students of the same age (M.C. Emmons, Personal communication, September, 1998). The convenience sample included all young adult women who were present in class on the day of data collection, met the criteria for age and inclusion, and agreed to participate. Participation was voluntary. A total of 39 subjects participated in the study.

Method of Data Collection

After approval to conduct the research was granted by the Committee on Use of Human Subjects in Experimentation of Mississippi University for Women (see Appendix A) and The University of Memphis (see Appendix B) verbal permission was obtained via telephone conversation, and a signed consent was obtained from the dean of the school of nursing (see Appendix C).

On the day of data collection, the researcher was present in two nursing classes. The purpose and procedures of this research study were explained to the potential subjects and each was provided with a packet containing a letter of invitation to
participate in the study (see Appendix D), a letter of informed consent (see Appendix E), and a copy of Martin's Contraception Questionnaire (see Appendix F). The subjects were assured that participation in the study would in no way impact the grade that they received in the course.

As each subject agreed to participate, she completed Martin's Contraception Questionnaire and placed it in a box at the front of the classroom. The researcher remained in the room during data collection in order to answer any questions that might arise. To assure anonymity, the subjects were instructed not to write their names on the questionnaires. A stamped self-addressed envelope was provided to the instructor of the classes to return any questionnaires returned to her at a later time.

Instrumentation. Martin's Contraception Questionnaire, which was used to collect data for this study, was an 11-item researcher developed questionnaire. Questions one to five of Martin's Contraception Questionnaire were designed to elicit demographic information including age, race, religion, age at first sexual intercourse, and whether the subjects had ever experienced a pregnancy. Questions six, seven, and eight pertained to what form of contraception was used during the adolescent years, where the method was obtained, and for what reason the method was chosen. Question nine elicited information regarding the consistency of use of the contraceptive method, and question ten sought to determine the reasons birth control was not utilized. Question 11 was an open ended, optional question to assess any advice the subjects wished to convey to adolescents who desired to prevent pregnancy. Estimated time required to complete the instrument was 15 minutes.

The researcher attempted to structure the tool to include information that had been found consistently in existing research and was pertinent to the research questions proposed by this study. Because the researcher developed the tool, there was no established validity or reliability. Face validity and content validity were established after a review and evaluation of the tool by a panel of expert nurses and researchers.
Method of Data Analysis

Data from this study were analyzed to answer the following research questions:
(1) What contraceptive practices do young adult women report they used during their adolescent years? and (2) What rationales do young adult women report for the contraceptive choices that were made during their adolescent years? Descriptive statistics were utilized to present the data obtained regarding demographics of the sample, the methods of contraception chosen, the consistency with which this methods were used and the reasons for choosing the particular method. Data were analyzed item by item using frequency distributions or measures of central tendency. Questions 1 and 3 were analyzed using means, medians, modes, and frequency distributions. The remainder of the items were analyzed using frequency distributions and percentages. Polit and Hungler (1995) define descriptive statistics as those that describe and synthesize data. Descriptive statistics were appropriate for this study as the aim of the study was to describe the phenomena of adolescent contraceptive compliance and synthesize the data into a form that can be used to establish interventions that increase use and compliance with contraceptives and decrease the number of teenagers who become pregnant. Data from the last, optional question of Martin’s Contraception Questionnaire were analyzed using content analysis for identification of common themes.
The purpose of this study was to determine reasons for adolescent contraceptive choice and compliance as identified by young adult women. A survey design was implemented for this descriptive study. A researcher designed questionnaire was utilized to obtain information from young adult women regarding what form of contraception was used during the adolescent years, where the chosen method was obtained, for what reasons it was chosen, and how consistently it was used, and if the young woman was sexually active and did not use contraception, the reasons behind that decision. Data from each question were analyzed using measures of central tendency and frequency distributions. The findings from this study are presented in this chapter.

Description of the Sample

The sample consisted of 39 young adult women participants ranging in age from 18 to 28 years with a mean age of 23.6 years. Twelve subjects identified themselves as African-American and, twenty-seven identified themselves as Caucasian. Most of the sample indicated a religious affiliation: 17 were Baptist, 6 were Methodist, 6 were Catholic, 2 were Christian, and 1 was Church of Christ. Four subjects described themselves as non-denominational. Three of the subjects had never experienced sexual intercourse. One of the subjects first experienced sexual intercourse at the age of 13, two at the age of 15, ten at the age of 16, nine at the age of 17, six at the age of 18, five at the age of 19, and two at the age of 20. Nine of the subjects had previously been pregnant. Table 1 summarizes the demographic characteristics of the sample.
Table 1

Demographic Characteristics of the Sample

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*Note. N = 39.*
Results of Data Analysis

Data were analyzed to answer the research questions: What contraceptive practices do young adult women report they used during their adolescent years and What rationales do young adult women report for the contraceptive choices made during the adolescent years.

Thirteen of the subjects (33%) reported use of the OCP as their sole method of birth control, seven (18%) reported utilizing the OCP with condoms, two (5%) practiced withdrawal with the use of the OCP, and one (3%) used the OCP in combination with the diaphragm. Seven of the subjects (18%) used only the male condom, one (3%) used withdrawal along with the condom, one (3%) utilized Depo-Provera injections, one (3%) employed only withdrawal, one subject (3%) practiced only oral sex, and three subjects (10%) maintained abstinence throughout their adolescent years. One subject (3%) chose not to answer the question.

The most common location to obtain the chosen method was the private health care provider’s office, where twelve of the subjects (31%) obtained their contraceptive methods, two (5%) utilized a department store along with the healthcare provider’s office to secure their contraception, and one (3%) sought contraception from the health department and the private physician’s office. Five of the subjects (13%) purchased their contraception from a department store, three (8%) reported obtaining contraception from a health department, two (5%) from Planned Parenthood, two (5%) from a pharmacy, one (3%) from a school health center, and four subjects (10%) indicated use of both a health department and a department store to obtain contraception.

The majority (51%) of the subjects indicated they always utilized their chosen method of contraception as prescribed. Reasons cited by these subjects included “did not want to get pregnant” (n = 15) “medical reasons” (n = 5) and “easy to keep up with” (n = 2). Twelve subjects (31%) expressed the fact that they usually used their chosen method of contraception as prescribed. The reasons cited for the lack of consistent use were “forgot at
times” (n = 3), and “couldn’t remember to do it” (n = 2). Twelve of the subjects (31%) declined to give a reason for consistency of use.

The most prevalent rationale cited by the subjects for their choice of contraception was ease of use (18%), and five (13%) cited ease of use along with ease in obtaining as the reason for personal choice. The fact that the contraceptive was easy to obtain was cited by three subjects (8%) as the main reason for their choices, health reasons were cited by four subjects (10%), parental insistence was the main reason for choice named by three students (8%), and the ability to easily hide the contraceptive method was cited by two subjects (5%). Price was a factor for other subjects, two (5%) cited price and ease in obtaining and two (5%) named price and ease of use as their main reasons for the choices made. Nine of the subjects (23%) declined to give rationale for contraceptive choice.

Additional Findings

The last question of the questionnaire was an optional question that asked the subject if she had any advice for teenagers who wished to avoid pregnancy. These data were analyzed for identification of common themes. During this process, two common ideas emerged. The most frequent response from those who chose to answer the question was to remain abstinent (59%). Comments included:

“Abstinence is always the safest.”
“Stay abstinent as long as you can.”
“Abstinence until marriage.”
“Do not fall into peer pressure. Abstinence is the best method.”
“Please abstain.”
“Abstinence is the only way not to become pregnant.”

A second common theme was that of taking responsibility and using whatever contraception method that is chosen consistently. Seven subjects (24%) identified this idea as most important in prevention of pregnancy among the adolescent population. Comments included:
“Be responsible. Protect yourself.”

“Be consistent with your use of birth control.”

“Always use protection.”

Other responses included:

“Talk to an adult figure who can guide you in effective choice.”

“Ask questions early. Seek advice from school health nurses.”

“Get more education and be aware of potential problems.”

“Seek help as soon as you become interested in sex.”

“Masturbate.”

Summary

The sample consisted of 39 young adult women between the ages of 18 and 28. Most of the sample was Caucasian, and over three quarters of the sample had never experienced a pregnancy. The most common religious affiliation identified by the members of the sample was Baptist followed by Methodist and Catholic. The majority of the sample first experienced sexual intercourse at some point during the adolescent years.

The most common choice of contraception during the adolescent years was the oral contraceptive pill either alone or in combination with another method such as the diaphragm, withdrawal, and the male condom. The most popular place to obtain contraception was the health care provider’s office followed by a department store and health department. Most of the subjects always utilized the method of contraception exactly as it was prescribed with the prevailing reason being the wish to avoid pregnancy. The prevailing rationales given for choice of contraception were ease of use, ease in obtaining, and health reasons. Responses about advice to teenagers who wish to avoid pregnancy yielded two common themes, abstinence and taking responsibility to consistently use the chosen method.
The adolescent pregnancy rate in the United States is the highest of any Western industrialized country, although there are numerous contraceptive options readily available to adolescents (Flanagan & McGrath, 1995). The purpose of this study was to explore the factors related to adolescent contraceptive usage and compliance. Parse’s Theory of Health as Human Becoming served as the theoretical framework for this descriptive study. The research questions that guided this study were: (1) What contraceptive practices do young adult women report they used during their adolescent years?, and (2) What rationales do young adult women report for the contraceptive choices made during the adolescent years? A convenience sample of 39 young adult women were surveyed using Martin’s Contraception Questionnaire, an 11 item researcher designed instrument. Responses to the instrument were analyzed using frequency distributions and percentages. A summary and discussion of the findings of this study are presented in this chapter. The conclusions, implications for nursing, and recommendations that emerged from the findings are also discussed.

Summary and Discussion of the Findings

The convenience sample consisted of 39 young adult women between the ages of 18 and 28 years who attended nursing classes at an urban southeastern university, agreed to participate in the study, and completed Martin’s Contraception Questionnaire. The majority of the sample (69%) was Caucasian. The preponderance of the subjects (77%)
had never been pregnant. Almost half of the subjects (44%) identified themselves as being affiliated with the Baptist religion.

The most popular method of contraception chosen by the subjects was the oral contraceptive pill (OCP). Thirteen of the subjects (33%) reported that the OCP was their sole method of birth control during adolescence while an additional ten subjects (23%) reported its use along with another method such as condoms, withdrawal, and the diaphragm. The private healthcare provider’s office was the most commonly identified location from which the contraception method was obtained (31%) followed by a department store and health department. The most common rationale given for the choice was a combination of ease of use, ease in obtaining, and price (23%). Other rationale cited included ease of use (18%), ease in obtaining (8%) and health reasons (10%). A majority (51%) of those who had used contraception reported they used it consistently; the most prominent reason cited for this consistency was “I did not want to get pregnant.” The remainder of the subjects stated they usually, but not always, used their chosen method of contraception citing that they “could not remember to always use it.”

The findings of this study indicated that the method of contraception most frequently chosen by adolescent females was the OCP, either alone or in combination with the male condom, the diaphragm, or withdrawal. This finding was in accordance with that of Hanna (1997) who stated that the OCP was the most commonly used contraceptive among teens. However, other findings differed from Hanna (1997) who identified a poor rate of compliance with the OCP, as low as 10%. The current researcher found that the majority of young adult women (51%) reported utilizing their chosen method of contraception exactly as directed while adolescents. The findings are also in contrast with a similar study by Green and Johnson (1992) who found that fewer than 20% of adolescents utilize contraception consistently and correctly. Although outcomes differed, the findings of this study seem to support one of the conclusions of Green and Johnson (1992) who found that higher level cognitive ability is related to higher level
decision making. While cognitive ability was not directly measured, the respondents to this survey were in a baccalaureate program in nursing which has a moderately difficult curriculum. Therefore, it can be surmised that the subjects were of average to above average intelligence. Nurse practitioners in primary care can respond to this finding by assuring that intellect appropriate contraceptive methods are chosen for their clients, and that individualized education regarding the chosen method is offered.

The findings of this study seem to differ from the premise of a study by Hewell and Andrews (1996) who concluded that previous sexual experiences had no impact on later contraceptive practices. Nearly one fourth (23%) of the subjects in the current study had previously experienced a pregnancy and more than half (56%) first experienced sexual intercourse before the age of 18 years. Although abstinence was not a common practice during adolescence for these subjects, at the time of survey, they deemed it the most important and prudent practice in the prevention of unwanted pregnancy. From informal conversation which occurred after data collection had taken place, it was inferred by the researcher that most participants who had been pregnant had experienced the pregnancy after the age of 18; however, some had become mothers during the teenage years. The researcher reasons that previous experience with sexual activity and with pregnancy influenced the decision making processes regarding contraception for these subjects.

Hollander (1996) identified a conventional lifestyle, as defined by valuing personal achievement and having good health practices, to be positively correlated with regular use of contraceptives. Current findings demonstrate a confirmation of this idea. The subjects, nursing students, have demonstrated a desire for personal accomplishment by having definite career goals and working to achieve them. They viewed the consistent utilization of contraception as a responsibility for which they were accountable. It allowed them to ensure achievement of future goals by avoiding the unwanted obligation of a child.
The majority of subjects in this study (67%) identified themselves as being affiliated with a Protestant religion; this greatly influenced their viewpoint on birth control in a positive way. These findings seem to support the premise of a study by Brewster, et. al. (1998) who found that among Caucasians affiliation with a religion classified in their residual category, which included the Protestant religions, is associated with a lower rate of sexual activity and an increased rate of contraceptive use during adolescence.

The findings of this study are in contrast with Henderson (1995) and Furstenberg and Hughes (1995), who found that adolescents lack trust in healthcare providers and very seldom consult them about contraception. This researcher found that a healthcare provider's office was the most commonly identified site for adolescents to obtain contraception (78%). The researcher concludes that the sample for this study, as future healthcare providers, may have be more apt to consult a physician or nurse practitioner rather than peers for contraceptive information.

Only 3 of the subjects indicated parental insistence influenced their contraceptive choices, therefore, the decision among methods of contraception rested with the individual adolescent female. This is supported by Parse's Theory of Health as Human Becoming (1998) which incorporates the idea that man is an unrestricted being, freely choosing among options which lead in one direction and not another.

The belief that today's adolescents should remain abstinent emerged as an important additional finding of this study. While only 4 subjects practiced abstinence during their adolescence, 17 subjects identified abstinence as the recommended method of choice for today's adolescents to avoid pregnancy. This idea further advances the concept presented by Gordon (1996) who demonstrated the differences between the adolescent and the adult decision making processes. Thought processes during adolescence are concrete. Adolescents make choices based on the present without regard to future consequences. Abstract thinking and advanced decision making abilities
develop with age. The young adult women in this study had gained the ability to reflect on their behaviors as adolescents with some degree of objectivity. The women now have the experience and insight to know what choices surrounding sexual practices and contraception might have led to a healthier and happier adolescence. This insight contributes to a valuable knowledge base upon which nurse practitioners can begin to develop contraceptive options and educational interventions that will be well received by the adolescents of today.

Limitations

A lack of randomization was the greatest threat to the generalization of the study’s findings. Sample selection was restricted to those who were present in class on the day of data collection. The sampling design was one of convenience from only one school; therefore, a true representation of the population may not have been presented. The sample for this study consisted of nursing students, who are potentially more knowledgeable regarding the content, and this increased knowledge could create a bias affecting the results. The instrument utilized was researcher designed had no established reliability and validity. The tool was utilized for the first time and was not inclusive of age at which pregnancy occurred, the extent of parental involvement with the contraceptive decision making process, and whether the subject had any formal education regarding contraception.

Conclusions

The following conclusions were derived from the findings of this study:

1. The most prevalent method of contraception utilized by adolescent females was the OCP.
2. The most common location to obtain contraception was the private healthcare provider’s office.
3. Ease of use was the most common rationale given for contraceptive choice among the adolescent female population.

4. Generally, adolescent females utilized contraception exactly as prescribed.

5. The most common rationale given for consistent use of contraception was the desire to avoid pregnancy.

6. The majority of the subjects, when reflecting on their adolescent years, felt that abstinence was the most sensible method of contraception.

**Implications for Nursing**

Identification of factors related to the use of contraception by adolescent females has broad implications for the nursing profession. Nursing focuses on treatment of human responses to health situations, with an emphasis on holistic care. The findings of this study can be utilized to further the nursing profession in the areas of practice, education, and research.

This researcher sought to increase the knowledge base of nurse practitioners as to the factors that influence adolescents' choice and use of contraception. By becoming familiar with adolescent contraceptive practices and being knowledgeable of the factors that influence compliance, the nurse practitioner is in the position to provide an individualized educational intervention for the adolescent female. The importance of such an opportunity has been underscored by the findings from this study related to the cognitive ability and future orientation of college bound adolescent females.

The women in this study indicated that they usually sought contraception from some sort of primary care facility. The nurse practitioner in primary care practice is often in the enviable position of being able offer intense one to one personal attention to the adolescent female. Understanding the reasons behind contraceptive choice and helping the adolescent explore these reasons and make an informed decision facilitates trust between the adolescent and the healthcare provider. Finally, the additional findings of
this study offer a fresh and hopeful perspective that the notion of abstinence is beginning to make its way into the minds and belief systems of young women. Nurses can capitalize on this occurrence by teaching and encouraging young women to be role models and mentors for those adolescents who are struggling with decisions regarding sexuality and contraception.

The findings of this study have implications for the development of nursing curricula both at the graduate and undergraduate level. Course content which included the findings of this and similar studies would educate future nurses and nurse practitioners to develop interventions from the perspective of the adolescent. Since education does not end in academia, these findings also could be used as content for inservice and continuing education programs for experienced nurse practitioners.

The purpose of nursing research is to explain, predict, and describe phenomena in order to better understand and control outcomes within the realm of practice. Findings from this research add to the existing body of knowledge about contraceptive choices made by adolescent females. Nurse researchers can utilize the findings regarding motivations to use contraception to conceptualize additional research studies and clinical interventions aimed at preventing unplanned adolescent pregnancies. Findings from this study are also suggestive of other demographic variables, such as religion and future orientation, which need to be investigated further in regards to their roles in contraceptive choice. Participation in research activities is a critical role for the advanced practice nurse who holds the responsibility not only of practicing from an empirical base, but of facilitating the evolution of empirically based practice.

Recommendations

Based on the findings of this study, the following recommendations are made for future research and study:
Research

1. Conduction of a similar study to refine and establish validity of Martin’s Contraception Questionnaire with the addition of inquiries regarding the age at which pregnancy occurred, the extent of parental involvement in contraceptive choice, and whether the subject had any formal education regarding contraception.

2. Replication of the study with a larger, more diverse sample and in other settings and geographic locations.

3. Conduction of a qualitative study to further elucidate the perceptions revealed in this descriptive study.

Nursing

1. Inclusion of content regarding adolescent sexual behavior, decision making processes, and contraceptive practices in the education of the nurse practitioner.

2. Utilization of the roles of the nurse practitioner as counselor and educator to facilitate the adolescent in making a contraceptive choice that is individualized for intellect and developmental level.

3. Utilization of the nurse practitioner role in the education of adolescents in the advantages of remaining abstinent.

4. Utilization of the nurse practitioner role as advocate in encouraging young adult women in the community to become role models and mentors for adolescent girls.
REFERENCES
References


Hollander, D. (1996). Contraceptive use is most regular if teenagers have conventional lifestyles. Family Planning Perspectives, 28(6), 289-290.


APPENDIX A

APPROVAL OF MISSISSIPPI UNIVERSITY FOR WOMEN
COMMITTEE ON USE OF HUMAN SUBJECTS
IN EXPERIMENTATION
March 22, 1999

Ms. Dana Martin
c/o Graduate Program in Nursing
Campus

Dear Ms. Martin:

I am pleased to inform you that the members of the Committee on Human Subjects in Experimentation have approved your proposed research as submitted provided you make it clear on the consent form that confidentiality will be maintained and no reports will be made with any participant's name on it.

I wish you much success in your research.

Sincerely,

Susan Kupisch, Ph.D.
Vice President for Academic Affairs

SK: wr

cc: Mr. Jim Davidson
Dr. Mary Pat Curtis
Ms. Lorraine Hamm
APPENDIX B

APPROVAL OF THE UNIVERSITY OF MEMPHIS COMMITTEE ON USE OF HUMAN SUBJECTS IN EXPERIMENTATION
THE UNIVERSITY OF MEMPHIS

Memorandum

TO: Dana Martin
Mississippi University for Women

FROM: Chairman, University Committee on the Protection of Human Research Participants

SUBJECT: Review of Research Protocol

DATE: March 2, 1999

Your research protocol for the project entitled "Young Adult Women's Reflections of Contraceptive Practices During Their Adolescence" (H99115) was reviewed and approved by one member of the Institutional Review Board at The University of Memphis.

It did not require full IRB review under the Federal guidelines, 45 CFR 46, Section 101(b) paragraph 2 for research involving the use of survey procedures.

[Signature]
Approved [Date]
APPENDIX C

PERMISSION TO CONDUCT THE STUDY
Dr. Toni Bargagliotti, DNSc, RN  
Loewenberg School of Nursing  
The University of Memphis  
Memphis, TN 38152  

March 29, 1999  

Dear Dr. Bargagliotti,

I am a 1996 graduate of the Loewenberg School of Nursing and am currently pursuing my MSN at Mississippi University for Women School of Nursing in Columbus, Mississippi. In partial fulfillment of my degree requirements I am performing a research study entitled "Young Adult Women’s Reflections of Contraceptive Practices During Their Adolescent Years."

The purpose of this study will be to explore reasons for adolescent contraceptive use and compliance. I am using a sample of young adult women, as I hope they may give more thoughtful and insightful answers into the phenomena. I am requesting your assistance and permission to utilize two nursing classes at the Loewenberg School of Nursing for my research study. I have received approval from the IRB of The U of M to conduct the study.

Data collection would involve an approximate 5 minute explanation at the beginning or end of a class period and then distribution of a participant information sheet and an adolescent contraception questionnaire, both of which I have enclosed for your review. Anonymity would be assured by assigning the questionnaires a number rather than a name. The students would fill out the questionnaire at their leisure and return it to the instructor or, preferably to the reception desk at Newport Hall. I will provide a stamped self-addressed envelope for their return. I am requesting your permission to utilize the Foundations of Nursing and the Adult Health classes for my study. Data collection could take place either during the regular class or in the Skills Lab.

I am enclosing a duplicate of this letter for your records. Please return the signed original one to me in the enclosed envelope. Thank you for your consideration and attention to this request.

Sincerely,

Dana Churchwell-Martin

[Signature]  

Permission Granted  

Date

[Signature]
APPENDIX D

LETTER OF INVITATION TO PARTICIPATE IN THE STUDY
Dear Student,

Hi, my name is Dana Churchwell-Martin; I am a 1996 graduate of the Loewenberg School of Nursing, and I am currently pursuing my Master’s Degree in Nursing at Mississippi University for Women in Columbus, Mississippi. I am conducting a study into adolescent contraceptive use as reflected upon by young adult women such as yourselves. I need your help in conducting my research.

The title of the study is *Young Adult Women’s Reflections of Contraceptive Practices During Their Adolescence*. Data is to be gathered through the use of a questionnaire. The questionnaire asks questions about what contraceptives were used during the teenage years and if they were used consistently and why. It should take approximately 15 to 20 minutes to complete. Although there is no immediate benefit to you for participation in this study, the findings can be utilized to develop programs and approaches that health care providers can use when dealing with teenagers. The goal of these approaches is to decrease teen pregnancy.

If you decide not to participate in the study, your grade in this class will in no way be affected. If you change your mind about agreeing to participate, you may withdraw from the study any time up until you return the completed questionnaire.

If you agree to participate in the study, please complete the questionnaire titled *Martin’s Contraceptive Questionnaire*. After completion of the questionnaire, please return it to me today or to the reception desk in Newport Hall. They will have an envelope to place them in so that they can be mailed to me. Please be assured that your participation in this study will in no way effect your grade in this class and that your identity will be protected at all times.

If you have additional questions, you may contact me at home at (901) 934-4664 or by e-mail at memartin@centuryinter.net.

Thank you,

Dana Martin, RN, BSN
APPENDIX E

PARTICIPANT’S INFORMED CONSENT TO PARTICIPATE IN THE STUDY
Participant’s Informed Consent

to Participate in Study

Title
Young Adult Women’s Reflections of Contraceptive Practices During Their Adolescence

1. I willingly agree to participate in the above named research study conducted by Dana Martin.

2. I have read to accompanying participant information provided by the researcher and I understand the purposes the researcher wishes to achieve and the merit of this study.

3. The researcher has answered my questions to my satisfaction, and I understand that I may refuse to participate in this study.

4. I have been informed by the researcher that my name will not be used in any way.

5. To the best of my ability, I judge that by participation in this study I place myself in no social, physical, or psychological danger.

6. I understand that my grades will in no way be affected by my participation in this study.

Thank you,

Dana Martin, RN

—I wish to participate in the study.

—I do not wish to participate in the study.

Participant’s Signature __________________________  Date __________

Researcher’s Signature __________________________  Date __________
Martin’s Contraceptive Questionnaire

*Please do not put your name on this questionnaire. Please complete each item.*

1. Age _____
2. Race __________
3. At what age did you first have sexual intercourse? _______
4. Religion ____________________________
5. Have you ever been pregnant? ____________________________

6. While an adolescent (when you were under the age of 19), what form of contraception did you use? *Please check all that apply.*
   - Pills ______
   - Norplant ______
   - Depo-Provera ______
   - Condoms Only ______
   - Abstinence ______
   - Withdrawl ______
   - Spermicidal Foam/Jelly ______
   - Had only oral sex or anal sex ______
   - Diaphragm ______
   - IUD ______
   - None ______
   - Other (Please Specify) ____________________________

   *If you were sexually active but did not use birth control, please skip to question 10.*

7. Where did you obtain this method? *Please check all that apply.*
   - Doctor’s Office ______
   - Health Department ______
   - Department Store ______
   - School Health Center ______
   - Pharmacy ______
   - Condom Machine ______
   - Other (Please Specify) ____________________________

8. For what reason did you choose this method? *Please check all that apply.*
   - Ease of use ______
   - Price ______
   - Ease in Obtaining ______
   - Easy to Hide ______
   - Parent Insisted ______
   - Other (Please Specify) ____________________________

9. Did you use the birth control method you chose consistently? *Always, Usually, Rarely, Never*
   - Always _____
   - Usually _____
   - Rarely _____
   - Never _____

   Why or why not? ____________________________
10. Why did you not use birth control? *Please check all that apply.*
   Too Much Trouble ________  Difficulty Obtaining the Method ________
   Afraid Parents Would Find Out ________  Cost ______________________
   Other __________________________

11. Do you have any advice for teenagers who wish to avoid becoming pregnant?